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STRAITS SETTLEMENTS.

The Straits Settlements Medical Report for the Year 1908.

1. *Population and Health.*—The following table shows the estimated population and the birth and death-rates for the years 1907 and 1908:—

SETTLEMENT.	Estimated mean Population.		Births.		Deaths.		Birth Ratio per mille.		Death Ratio per mille.	
	1907.	1908.	1907.	1908.	1907.	1908.	1907.	1908.	1907.	1908.
Singapore ...	264,650	271,060	5,774	6,084	12,341	12,726	21'82	22'45	46'63	46'95
Penang ...	132,483	133,067	2,310	2,942	4,787	5,738	17'43	22'10	36'13	43'12
Dindings ...	4,471	4,532	148	185	240	251	33'19	40'82	53'83	55'58
Province Wellesley	120,430	121,219	3,747	4,328	3,109	3,627	31'11	35'79	25'81	29'87
Malacca ...	97,762	98,138	4,202	4,535	3,743	4,699	42'98	46'21	38'28	47'88
Total ...	619,796	628,016	16,181	18,074	24,220	27,041	26'11	28'75	39'07	43'06

2. The mean estimated population which for 1901, calculated from the Census Returns, was 572,249 is estimated at 628,016 for 1908. This increase is mechanical, based entirely on the increase between the Census figures of 1891 and 1901, the natural means of estimating on the number of births and deaths and immigration and emigration not being practicable on account of records for the latter not being reliable.

3. It is satisfactory to note the increase in the birth-rates throughout the Settlements.

4. The death-rate for the Colony on the other hand has also increased from 39'07 in 1907 to 43'06 in 1908, Penang contributing the highest increase with Malacca next, whilst the Singapore figures remaining practically the same. From a health point of view this cannot be regarded as a satisfactory state of affairs notwithstanding the fact that the dumping of sick people on our shores from elsewhere contribute to swell our death-rates.

5. Of the number of deaths registered in 1908, 5,110 were amongst infants under one year of age, which represent a percentage of 21'07 of the total. The numbers for 1907 and 1906, respectively, were 4,339 and 4,195. The ratio per mille for 1908, after excluding the births of children born elsewhere than in the Colony, was 265'63 against 250'91 in the previous year. Of the 5,110 deaths of infants registered 3,367 are returned as due to "Convulsion."

6. With a view to effecting an improvement in this heavy mortality among infants it is the intention of Government to bring in a Midwives' Bill at an early date to make it compulsory for all women attending child-birth to hold a certificate of competency. A certain number of women are now being trained for this purpose and it is hoped that classes will soon be formed for teaching native women how to properly feed and rear infants. The only way of teaching native mothers to feed their children properly and the necessity of cleanliness, etc., is by first training the women that attend them in child-birth and through them educating the mothers.

7. The Municipal Health Authorities in Singapore, I am glad to notice, are leaving no stone unturned to bring to book any recalcitrant milk vendor with a view to better the milk supply. But I do not anticipate any appreciable improvement until some such system as at present pertains in Hongkong is introduced.

8. The following table gives the number of cases of Zymotic Diseases in the several Settlements in the years 1907 and 1908, and deaths therefrom, not including cases imported into the Colony:—

SETTLEMENT.		PLAGUE.				CHOLERA.				SMALL-POX.			
		1907.		1908.		1907.		1908.		1907.		1908.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Singapore	...	15	15	12	12	213	180	134	121	9	5	26	10
Penang	...	...	...	...	...	2	2	...	...	14	1	5	2
Province Wellesley...	...	...	...	...	...	...	...	64	57	2	2	...	...
Malacca	...	...	...	...	...	...	...	...	...	1	1	...	...
Total	...	15	15	12	12	215	182	198	178	26	9	31	12

9. *Plague*.—Of the cases reported 9 were Chinese, 1 Muhammadan, 1 Eurasian, and 1 European. Excepting the last two (Assistant Surgeon Mr. N. A. WRAY, and Dr. C. T. RAIKES) who contracted the disease in a post-mortem examination, the others were indigenous and in no case could the source of infection be traced. All the cases ended fatally.

10. *Cholera*.—The first case in Singapore took place in August and the disease continued till the end of the year. 198 cases in all were reported. A few cases occurred among patients admitted into the Tan Tock Seng's Hospital from other diseases. Owing to strong precautionary measures adopted by the staff the spread of the disease was luckily brought under control. At no time did the disease assume epidemic form. In Province Wellesley the disease broke out on 14th April and ceased on 14th May, exactly a month. It was traced to the people drinking the river water from the Kedah side where Cholera had been raging for some time.

11. *Small-pox*.—The few cases reported were all sporadic and call for no special remarks. Contacts in every case were vaccinated.

12. *Diphtheria*.—Thirteen cases with 3 deaths were reported in Singapore, none in the other Settlements.

13. *Enteric Fever*.—There were 247 cases reported to the Municipal Health Officer in Singapore of which 117 deaths were registered. Penang returned 35 deaths from this cause, Province Wellesley and Malacca none. Any figures under this heading cannot be much relied upon as there is no doubt in my view that many cases are included under deaths from "Fever Unspecified."

14. *Beri-beri*.—One thousand nine hundred deaths were registered in 1908 for the three Settlements, Singapore contributing nearly two-thirds of the number against 1,626 in 1907 and 1,507 in 1906.

15. The following are figures of all cases treated in the various hospitals for the years 1906, 1907, and 1908:—

Year.	Total cases.	Deaths.	Percentage of Deaths.
—	—	—	—
1906 ...	1,971	296	15.01
1907 ...	1,806	243	13.45
1908 ...	2,777	284	10.23

The total admissions into hospitals during 1908 exceeded the figures of the previous year by 971 but the percentage of deaths to total treated has steadily declined since the introduction of parboiled rice in the diet.

Dr. FRASER and his Assistants are still prosecuting their researches on this disease, but so far have not isolated the causal agent. They have demonstrated, however, that people living on parboiled rice do not suffer from beri-beri, whereas those living on uncured rice are subject to the infection and do contract the disease. Should the rice theory of beri-beri be substantiated great credit will be due to Dr. BRADDON, who in

the Malay Peninsula, at any rate, was the first to strongly advocate this theory against a consensus of medical opinion at that time.

16. *Venereal Diseases*.—The admissions to all the hospitals in 1908 were 2,114 with 55 deaths. In 1907, there were 2,460 admissions with 46 deaths, and in 1906 2,371 admissions with 95 deaths. Of the admission in 1908, 212 were females of whom 100 were prostitutes.

17. *Phthisis*.—Deaths registered from this cause numbered 2,988, against 2,820 and 2,709 in 1907 and in 1906 respectively. This disease seems to be steadily on the increase and its progress will not be checked until overcrowding is removed and the poor are better housed. It is hoped, however, that some improvement at least will result from the recent legislation prohibiting spitting in public places.

18. *Dysentery and Diarrhœa*.—There were 1,394 and 638 deaths, respectively, from these causes, as against 994 and 677, respectively, in 1907.

19. *Malaria*.—The deaths under this heading numbered 3,062 in 1908, Singapore being responsible for two-thirds of the whole. The admissions into hospitals totalled 4,587 as against 4,279 in 1907. Measures for the prevention of Malaria are being carried out throughout the Settlements by the Government, the Municipality and the Rural Boards.

Singapore.—During the year the following works have been carried out:—The reclamation of 7 acres of swamp land at Mount Zion. Filling in of two pools and a swamp at the foot of Fort Canning. Clearing many acres of land at Pearl's Hill. Filling in a swamp at the General Hospital. Filling and draining land at Keppel Harbour. The Municipality are keeping all anopheles breeding stagnant pools within their limits covered with crude petroleum. Many small swampy places have been drained or filled up by owners on receiving notice from the Municipality.

Penang.—Reclaiming swamps. Clearing of jungle, filling up marshes, spraying of pools and swamps with kerosine oil is continually being carried out under the supervision of the Municipal Health Officer.

Province Wellesley.—Six villages were drained during the year.

DEATHS REGISTERED IN THE STRAITS SETTLEMENTS FROM DIFFERENT CAUSES IN 1908.

20. If one takes the "causes of death" which occur at Tan Tock Seng's Hospital as an index of the incidence of death for the whole Colony and one may reasonably do so as the highest death-rate occurs between the ages of 25-45, just the age when the majority of the patients are admitted into Tan Tock Seng's Hospital, then the statistics for the Colony must be essentially wrong. As in the previous year the greatest difference is in the case of Dysentery and I think this is a disease upon which greater stress should be laid. There is no doubt the people contract it by drinking water from polluted wells, fly-infection on food stuffs, uncooked vegetables, and their own filthy habits in latrines. It may be also that, as Enteric Fever is transmitted by "typhoid carriers"—i.e., convalescents who are still passing pathogenic organisms—the disease is spread in much the same way by "dysentery carriers." As 25 per cent of all who died at the Tan Tock Seng's Hospital showed old or recent ulcerative conditions of the large gut, it may be easily conceived what a large number of such individuals there must be in the Colony. No doubt a considerable number of cases of enteric fever also occur that are not reported. My reason for thinking so is that 50 out of the 152 deaths reported occurred at Tan Tock Seng's Hospital. Quite a number were admitted in the third week of the disease and during these three weeks it is probable that they were producing infection in other individuals. In addition we have had several cases dying of dysentery who showed recently healed enteric ulcers and such cases had had no hospital treatment nor been reported to the Municipal Health Officers. By referring to Appendix M—it will be seen that 4,624 deaths are returned as "fever not specified" and it is only reasonable to suspect that a number of these cases were enteric fever.

21. *Sanitation, etc.*—In Singapore the Municipality has made much progress towards the extended water supply. Drains have been improved and new drains built in many places. All town refuse is now incinerated.

Professor SIMPSON's recommendations as to back-lanes and open spaces about houses is being carried into effect on the land known as Sultan ALI's Estate and I have no doubt that in course of time when some of the overcrowded parts of the town have been similarly dealt with much improvement will result in the health statistics of the town.

The question of having the pail system for night-soil is still undecided, it having been proposed to refer it to an expert.

An Analyst has been added to the staff of the Municipal Health Department and a specially trained man has been brought out to look after the food supply in the markets.

Ten thousand five hundred and fifty-five dollars was spent by Government on sanitary improvements in Singapore.

Eight thousand dollars in Penang, \$2,000 in the Dindings, \$4,000 in Province Wellesley.

22. *Hospitals and Work Done.*—The total number of admissions into the hospitals during 1908, excluding the Lunatic Asylum, was 27,361 against 26,196 in 1907. The following table shows the work done during the last three years:—

Year.	Number of Patients Treated.			Number of Deaths.			Percentage of Deaths to Total Treated.		
	Europeans.	Natives.	Total.	Europeans.	Natives.	Total.	Europeans.	Natives.	Total.
(a) 1906 ...	1,103	26,237	27,340	63	3,768	3,831	5·71	14·36	14·01
(b) 1907 ...	1,193	27,515	28,708	74	3,614	3,688	6·20	13·13	12·85
(c) 1908 ...	1,287	29,083	30,370	83	3,948	4,031	6·45	13·57	13·24

Includes Lunatic Asylum:—
 { (a) 509 cases and 67 deaths.
 (b) 483 cases and 57 deaths.
 (c) 508 cases and 65 deaths.

23. The diseases responsible for the greatest number of admissions and deaths are shown in the subjoined tables with the corresponding diseases and deaths in 1907:—

Diseases.	1907.		1908.	
	Admissions.	Deaths.	Admissions.	Deaths.
<i>Infective Diseases:—</i>				
Beri-beri ...	1,806	243	2,777	284
Dysentery ...	1,351	540	1,452	658
Enteric Fever ...	2,94	108	243	96
Malaria ...	4,279	395	4,587	504
Pneumonia ...	292	150	282	140
Pyrexia ...	533	4	683	4
Tuberculosis (including Phthisis) ...	1,023	583	1,032	601
Venereal Diseases ...	(a) 2,460	46	2,114	55
<i>General Diseases not included in above:—</i>				
Anæmia and Debility ...	854	150	792	168
Diseases of the Nervous System ...	530	94	581	145
Diseases of the Respiratory System (not including Phthisis) ...	621	78	685	91
Diseases of the Digestive System ...	(b) 2,324	513	2,180	428
Diseases of the Skin ...	2,810	22	2,899	15
Injuries, General and Local ...	1,995	102	1,928	92

(a) Not including cases classified under Diseases of the Generative System.

(b) For Diarrhœa only in 1907—926 admissions and 254 deaths.
 1908—909 admissions and 229 deaths.

24. *Quarantine Camp, Singapore.*—The new building is proceeding apace and when completed will be placed under the control of the Municipal Health Department.

25. *Lunatic Asylum.*—The total number treated was 508 (416 males and 92 females) against 483 in 1907.

The recovery rate is 30·19 the lowest since 1888. The death-rate was 19·93 on the average daily number resident. 75 per cent of the patients were usefully employed in the weaving of cloth and in filling a swamp outside the Asylum gates.

Two hundred and ninety-six patients remained at the end of the year.

26. *Maternity Hospital, Singapore.*—Up to the time it was vacated there were 132 admissions. This with 11 admissions in the new wards gives a total of 143 against 105 in 1907.

The new Maternity Wards of the General Hospital were completed and occupied on the 1st December, 1908, and are built to accommodate 29 patients.

They are in a block by themselves separate from the other buildings of the General Hospital and have their own kitchens, bath rooms, etc. There are 12 wards and two "labour" wards, eight wards on the first floor of which five contain two beds each and three one bed each; four on the ground floor of which two contain six beds each, and two contain two beds each.

No charge is made for patients in the 6-bedded wards.

27. *Beri-beri Hospital, Pasir Panjang.*—Four hundred and fifty-three patients were treated in this hospital with only 10 deaths (4 from other diseases than Beri-beri), 179 were discharged recovered and 127 improved, a satisfactory result.

28. *Police Force.*—In Singapore, 4,454 out-patients were attended to against 3,518 in 1907. 512 were sent to hospital as against 289 in 1907, the majority of the cases sent being for Malarial Fever. Malingering is reported as being nearly stamped out which is satisfactory.

In Penang, 326 men were admitted into hospital.

29. *Estates in Province Wellesley.*—Six thousand one hundred and eighty-two cases were admitted into the Estate Hospitals against 4,874 in 1907. The diseases responsible for the greatest admissions were ulcers, bowel complaints, and fevers (unspecified). It is satisfactory to note that although the admissions have greatly increased the percentage of deaths has been lower, the number of deaths for 1908 and 1907, respectively, being 72 and 112.

30. *Out-door Dispensaries.*—Twenty-five thousand four hundred and ninety-seven patients were treated at the different dispensaries against 25,165 in 1907. The figures do not include out-patients treated by the Police Surgeon in Singapore which is dealt with under paragraph 28.

31. *Vaccination.*—The total number of vaccinations performed throughout the Colony in 1908 was 14,843 as against 13,745 in 1907. The following table shows the number vaccinated (exclusive of those performed in the Prisons and Quarantine Station and by Private Medical Practitioners) with the results in the several Settlements during 1908 :—

SETTLEMENT.	Number of Vaccina- tions performed.	RESULT.			
		Perfect.	Modified.	Failed.	Not seen.
Singapore ... {	2,330	2,329	Nil.	1	Nil. *
Penang ... {	1,723	1,668	Nil.	17	38 †
Province Wellesley ...	3,369	3,095	215	27	32
Dindings ...	3,845	3,448	133	158	106
Malacca ...	148	123	4	4	17
	3,428	3,289	75	43	21
Total ...	14,843	13,952	427	250	214

* By Government Vaccinator.

† By Licensed Vaccinators.

32. *Quarantine*.—The number of passengers and crew examined on arrival in Singapore were 220,527 and 82,957, respectively, against 298,545 and 78,781, respectively, in the previous year.

Ten out-going pilgrim ships with 5,712 pilgrims were also examined on departure as against 5,781 in 1907. The number of passengers landed on St. John's was 29,356 or 2,948 more than in 1907.

In Penang, 126,526 passengers (including 4,759 out-going pilgrims) and 49,593 crew were examined and 21,175 passengers were landed for observation. Both stations were continuously occupied throughout the year.

33. A most regrettable incident occurred in Singapore at the beginning of May, by which the lives of two valuable officers were lost. Dr. C. T. RAIKES and Assistant Surgeon Mr. N. A. WRAY contracted Plague whilst holding a post-mortem examination on a Plague case. Both succumbed within a few days of each other. The former was a promising young officer who had been only three months in the Department, and gave every promise of a brilliant future career, whilst the latter had served the Government for over 20 years with credit to himself and the Department. Mr. WRAY did not belong to the Widows' and Orphans' Pension Fund, but notwithstanding this the Government has granted a monthly allowance to his widow.

34. *Government Analyst's Department*.—The work in this Department, Analytical and otherwise shows an increase over previous years, in consequence of which the Revenue has correspondingly increased. The post of Laboratory Assistant was abolished during the year and the appointment of Second Assistant Government Analyst was created in its place and filled by a qualified man from Europe.

35. *Medical School*.—This institution continues to give good results. There were 58 students (two females) on the roll at the end of the year for the full five years' course (Licentiates). Sixteen of these are due for their final examination in 1910. One Chinese student who had been three years in the School left for the purpose of continuing his studies in London.

36. *Pathological Department*.—The report (Appendix K) forms an interesting reading and shows what amount of useful work is being done in this Department.

37. *Medical Department, Labuan*.—The population of Labuan is estimated at 8,245. There were 172 births and 213 deaths registered during the year. Of the deaths 67 were those of infants under one year, a ratio of over 300 per mille; 167 patients were treated in hospital, 17 being for Beri-beri. There were 22 deaths (6 from Beri-beri). Two hundred and ninety vaccinations were performed, 65 failed and 39 were not seen.

38.—(a) *Miscellaneous*.—Two certificates as Chemists were issued during the year under the Deleterious Drugs Ordinance and 57 licences for either wholesale or retail or both were issued under the Poisons Ordinance in Singapore, 14 in Penang and two in Malacca.

(b) Two hundred and three Medical Practitioners stood on the Register on the 31st December. Of these, 95 are in the service of the Straits and Federated Malay States Governments, the others being in private practice, 93 in the Colony and 15 in the Federated Malay States.

(c) One Student who was sent to the Madras Medical School before the establishment of the school here passed his final examination and has been attached to the Tan Tock Seng's Hospital. Two more students remained in Madras at the end of the year.

(d) Two probationers passed out from the Maternity Hospital during the year, the total number being now 13. I am given to understand that there is work enough for many more in Singapore both for maternity and sick cases. This is additional argument for pushing forward the proposal for the training of native women.

39. *Staff*.—I was away on leave in Europe from 5th June to 6th November during which time Dr. ELLIS carried on the duties of my office in conjunction with those of Medical Superintendent, Lunatic Asylum.

Dr. T. C. MUGLISTON, Senior Medical Officer, Penang, retired on pension on the 4th January, Dr. J. T. LEASK receiving the promotion but retaining his post as Senior Medical Officer, General Hospital, Singapore.

Dr. S. H. LUCY was appointed Senior Medical Officer in charge of Penang. During his absence on leave Dr. R. DANE carried on the work until March.

Dr. W. G. ELLIS was on leave from 17th January to 21st May when Dr. G. D. FREER, Principal of the Medical School, looked after the Lunatic Asylum.

Dr. S. H. LUCY, Senior Medical Officer, Penang, was promoted to be Senior Medical Officer in charge of Negri Sembilan being succeeded temporarily by Dr. W. H. FRY, State Surgeon, Pahang, on 22nd September.

Dr. F. B. CROUCHER proceeded on leave on 30th March. Dr. R. DANE being sent to Malacca as Medical Officer in charge until 14th October, when he in turn proceeded on leave being succeeded by Dr. P. H. HENNESSY from Singapore.

Dr. W. S. SHEPPARD, Medical Officer, Province Wellesley, returned from leave on 19th May and took over the duties of Senior Medical Officer in charge of Government Officials *vice* Dr. R. DANE acting elsewhere.

Dr. G. E. BROOKE, Port Health Officer, who had been absent on leave from the beginning of the year returned on 9th October, Dr. H. J. GIBBS, the acting officer reverting to his substantive post of Medical Officer, Tan Tock Seng's Hospital, relieving Dr. MILLARD.

Dr. P. H. HENNESSY was promoted Supernumerary Medical Officer on 21st February *vice* Dr. D. M. FORD transferred to the Federated Malay States Service, Dr. A. R. WELLINGTON succeeding Dr. HENNESSY as Medical Officer, Port Health Office, on 10th September.

Drs. T. C. A. CLEVERTON, S. M. LIVESEY, C. T. RAIKES, J. G. MCGREGOR, were appointed Medical Officers, Straits Settlements, during the year and reported their arrival in the Colony on 27th January, 12th February, 12th February, and 25th March respectively.

Dr. R. E. ADAMSON, Medical Officer, resigned on 11th March and was succeeded by Dr. T. C. CLEVERTON on 8th April.

Mr. J. C. COWAP, B. SC., A. I. C., was appointed Second Assistant Government Analyst on 9th October.

40. The following Reports are appended :—


- (a) Singapore Hospitals.
- (b) Penang Hospitals.
- (c) Province Wellesley Hospitals.
- (d) Malacca Hospitals.
- (e) Hospitals for Women.
- (f) Out-door Dispensaries.
- (g) Vaccination.
- (h) Quarantine.
- (i) Government Analyst's Department.
- (j) Medical School.
- (k) Pathological Department.
- (l) Labuan Medical Department.
- (m) Return of Deaths in the Straits Settlements.

and I append also the following returns from Singapore, Penang, Province Wellesley, Malacca and Labuan :—

- (1) Statistics of Population.
- (2) Meteorological Returns.
- (3) Nosological Returns.

D. K. McDOWELL,
Principal Civil Medical Officer,
Straits Settlements.

SINGAPORE, 28th June, 1909.



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APPENDIX A.

SINGAPORE.

General Hospital.

Report by Dr. J. LEASK, *Senior Medical Officer-in-charge.*

1. *Buildings.*—The New Maternity Block was completed and opened for patients on 1st December.
2. The wooden floor of the Seamen's Ward pantry was renewed in cement.
3. Brick dust-bins were constructed at the Native Wards and Medical Officer's Quarters.
4. The brick tank between the Native Wards used for disinfecting bed boards, was extended and raised.
5. Wire-netting frames were placed over the wire gauze of the Malarial Ward to protect it from damage.
6. The old Dhoby-house was converted into quarters for servants.
7. Stands for drying clothes were supplied to the New Laundry and additional clothes-lines were put up outside.
8. Electric bell communication between the new female block and the Seamen's Ward Nurses' duty room was made.
9. The bath rooms in the Nurses' Quarters were lined with Minton tiles.
10. A Lavatory in connection with the outlying block of the Nurses' quarters was partially erected.
11. *Grounds.*—The Nurses' tennis lawn was raised.
12. A bamboo fence was planted along the fence between the Nurses' quarters and the old isolation Hospital.
13. *Gas.*—The pressure is still unsatisfactory being very intermittent at times.
14. The removal of night-soil was very badly performed, being always late.
15. The removal of rubbish was regular.
16. The Telephone service was very unsatisfactory at times.
17. The noises round the hospital seem to be on the increase.
18. *Work done.*—The Officers' Wards were well filled during the year: on several occasions patients had to wait in the Seamen's Wards until there was a vacant bed in the Officers' Wards.
19. The Seamen's Wards were well filled on some occasions, and on others had only a few patients.
20. The new Female Block has not been well patronized so far.
21. The Maternity Block was opened to patients on 1st December, and up to the end of the year 10 patients had been admitted there, consisting of 2 Europeans, 2 Sikhs, 3 Tamils and 3 Chinese.
22. The Native Wards were badly overcrowded several times and further extension will soon be required.
23. There were 4,233 admissions (376 of whom were females) against 3,938 in 1907.
24. The total treated during 1908 was 4,370 against 4,052 in 1907; and the average daily sick was 168·04 against 142·63 in 1907.
25. There were 377 deaths (35 in females) against 353 in 1907.

26. The percentage of deaths to total treated was 8·60, against 8·716 in 1907.

	Remaining from 31.12.07.	Admitted in 1908.	Total treated.	Discharged.	Transferred.	Absconded.	Died.	Remaining 31.12.08.	Percentage of Deaths to total treated.
Europeans ...	22	659	681	610	5	1	42	23	6·16
Natives ...	107	2,907	3,014	2,322	174	93	332	93	11·01
Police ...	8	667	675	632	2	25	3	13	0·4
Total ...	137	4,233	4,370	3,564	181	119	377	129	8·60

27. *European Wards.*—There were 659 admissions (of whom 95 were females) to the European Wards, including European Police and Maternity patients.

28. The principal causes of admission were:—Malaria 111, Venereal Diseases 60, Injuries 55, Dysentery 27, Enteric Fever 22, Pyrexia of uncertain origin and Alcoholism each 19, Dengue 15, Anæmia 15, Tubercle (including Phthisis) 14, Appendicitis 12, Bronchitis, Synovitis and Myalgia each 10, Tonsillitis 9, Liver Abscess 7, and Observation 16.

29. Others of interest were:—Pneumonia 5, Hernia 3, Diphtheria 3, Beri-beri 2, Plague and Influenza each 1.

30. Deaths in the European Wards were 42 in number (6 being females) as against 40 in 1907, the percentage to total treated being 6·16 against 6·4 in 1907.

31. The principal causes of death were:—Dysentery 8, Enteric Fever 5, Liver Abscess and Tubercle of Lungs each 3, Malarial Fever, Secondary Syphilis, Malignant new growth and Myocarditis each 2, Injuries 2.

32. Other causes of death were:—Plague, Diphtheria, Pneumonia, Alcoholism, Meningitis, Hemiplegia, Hydrocephalus, Aortic Aneurism, Empyema, Gastric Ulcer, Appendicitis, Acute Nephritis, and Chronic Nephritis each 1.

33. *Native Wards.*—There were 2,907 (of whom 278 were females) admissions to the Native Wards including 8 admissions to the Maternity Wards.

34. The principal causes of admission were:—Injuries 760, Malaria 619, Venereal Disease 209, Observation 169, Dysentery 133, Beri-beri 122, Enteric Fever 100, Tuberculosis 81, Bronchitis 61, Abscess 39, Anæmia 34, Constipation 33, Diarrhœa, Fistula in Ano each 24, Pneumonia and Pyrexia of uncertain origin each 23, Chronic Nephritis 14.

35. *Zymotic Disease.*—Varicella 3, Cholera 2, Dengue 9, Diphtheria 1, Measles 1, Influenza 4, Small-pox 1.

Alcoholism was responsible for 6 native admissions.

For Non-malignant new growths there were 2 admissions, for Malignant 14, and for Cysts 6.

36. Other causes of admission of interest were:—Tetanus 2, Pleurisy 9, Empyema 2, Gastric Ulcer 1, Appendicitis 2, Hernia 9, Hæmorrhoids 7, Liver Abscess 6, Abscess of Spleen 1, Elephantiasis 2.

37. *Deaths.*—The number of deaths among these native patients was 332 (of whom 29 were among females) giving a percentage to total treated of 11·01 as against 10·097 in 1907.

38. The chief causes of Death were:—Malaria 71, Injuries 44, Tubercle (including Phthisis) 40, Dysentery 36, Enteric Fever 31, Beri-beri 24, Pneumonia 18, Chronic Nephritis 9, Malignant new growth 6.

39. Other causes of death of interest were:—Cholera 2, Diphtheria 1, Pyæmia 1, Septicæmia 3, Tetanus 1, Appendicitis 1, Hernia 3, Imperforate Anus 1, Liver Abscess 3, Abscess of Spleen 1, Opium Poisoning 2, Syphilis 2, Pernicious Anæmia 2, Elephantiasis 1.

40. *Native Police*.—There were 667 admitted against 350 in 1907.

41. The principal causes of admission were :—Malaria 239, Venereal Diseases 75, No disease discoverable 61, Bronchitis 54, Injuries 49, Dysentery 25, Diarrhœa 12, Constipation 11, Boils 10, Tubercle of Lung 10, Anæmia 9, Eczema 8, Pyrexia of uncertain origin 7, and Asthma 5.

42. Other causes of admission of interest were :—Beri-beri 4, Rheumatic Fever 4, Influenza 3, Mumps 3, Alcoholism 3, Dengue, Enteric Fever, Pneumonia, Appendicitis, Osteo Arthritis, and Bright's Disease each 1.

43. *Deaths*.—There were 3, one each from Mixed, Sub and Benign Tertian Malaria, Chronic Malaria, Tuberculosis Lung, giving a percentage to total treated of 0·4 against 0·84 in 1907.

44. *Medico-Legal*.—Nine hundred and ten persons were sent to Hospital by Police, 170 bodies sent for post-mortem examination by the Coroner, and 132 cases were sent for observation as to sanity.

45. *Operations*.—There were 230 surgical operations performed. Among the more numerous were :—Amputations 26, Opening Abscesses 25, Excision of Lymphatic Glands 21, Fistula in Ano 14, Trephining Skull 13, Hæmorrhoids 12, Liver Abscess 12, Ischio Rectal Abscess 11, Radical Cure of Hernia 11, (4 Strangulated and 7 reducible).

46. Other operations of interest were :—Laparotomy for suture of intestine 3, for Pancreatic Cyst 2, and exploratory 1, Excision of Appendix Vermiformis 4, Suprapubic Cystotomy 4, Ovariectomy 3, Cæsarian Section 1.

47. *Staff*.—I was in charge during the year as Senior Medical Officer.

48. *Medical Officers*.—Dr. ALFRED S. MILLARD was transferred for duty with the Port Health Officer on 21st February.

49. Dr. EDMUND G. WEIR was stationed here during the year.

50. Dr. CECIL TAUNTON RAIKES arrived in the Colony on 12th February and was transferred for duty under the Port Health Officer on 25th March.

51. His untimely death from Plague, contracted in the execution of his duty in the Quarantine Station, took place on 12th May.

During the short time he was on duty at this Hospital he gained the good will of all with whom he came in contact, and his distressing end occurring so soon after the beginning of his career, which promised to be a bright one, was much regretted.

52. Dr. JOHN GRANT MCGREGOR arrived in the Colony on 25th March and has taken duty here since.

53. *Dressers*.—THOMAS ANDERSON SUNDRAVEIL PILLAY, Senior Dresser, was dismissed on 9th June, and was succeeded by a Hospital Assistant, AMPALAVANAR PONNAMBALAM on 10th July.

54. Dresser ISAAC AUGUSTUS DANKER was transferred for duty on St. John's Island in May, and was succeeded by Dresser GEORGE DEVANASAM in June.

55. *Nursing Staff—Nursing Sisters*.—Miss M. J. MCNAIR was in charge during the year as Head Nurse.

56. Miss SUSANNAH B. SMITH arrived from England on 5th April, Miss ELIZABETH FLETCHER and Miss FLORENCE MILSOME ELLWORTHY arrived on 17th April.

57. Miss EDITH SAVERY arrived on 19th June.

58. Miss ROSE MANCELL arrived on 18th August.

59. Miss MAUDE MARY LINTON arrived on 25th December for the Singapore Nursing Association in place of Miss JESSIE MARTIN.

60. Mrs. E. LEWIS, Matron of the Maternity Wards, came on the staff on 1st December on the transfer to Sepoy Lines.

61. Miss MOLLIE CAMERON left on 17th January.

62. Miss WINNIFRED MORLAND resigned on 15th February.

63. Miss GRACE BLACK resigned on completion of her engagement on 14th April.

64. Miss ALICE SMITH resigned during her second term on 10th May.

65. Miss JESSIE MARTIN, Singapore Nursing Association, resigned on 20th November.

66. *Nursing Probationers*.—Miss BRIDGET CATHERINE STRATTENBURG commenced training on 1st January, Miss JESSIE WILLETT on 18th February,

Mrs. PHOEBE ANNA OWEN on 2nd March, and Mrs. LIZZIE A. TOFT on 18th March, Miss ALICE BROWN on 9th March.

67. Miss LILLIAN WOLFE, a trained nurse, joined on 9th June.
68. Miss MILDRED MUDA commenced training on 20th June and Mrs. COOPER ABBS on 1st July.
69. Miss ELSIE JACKSON with previous training joined on 1st August.
70. Miss ALICE SHARP and Miss NORAH MOORHOUSE commenced training on 1st November and 1st December respectively.
71. Miss ALICE GILMOUR with previous nursing experience joined as a Maternity Probationer on 7th December.
72. Miss LOUISA ROSS who commenced training on 13th November, 1907, left on 13th February. Mrs. PHOEBE A. OWEN who commenced training on 2nd March left on 5th March. Miss WINNIFRED BOYD who commenced training on 1st August, 1904, resigned on 7th March. Miss MARGARET PESTANA who commenced training on 1st May, 1907, resigned on 31st March. Miss ALICE BROWN who commenced training on 9th March left on 9th June. Miss MILDRED MUDA who commenced duty on 20th June left on 29th June. Miss JESSIE WILLETT who commenced training on 18th February resigned on 30th June. Miss OLIVE WARNOCK who commenced training on 27th September, 1907, resigned on 14th August. Miss HELEN GIBSON who commenced training on 31st January, 1907, resigned on 19th November.
73. Miss B. C. STRATTENBURG and Mrs. COOPER ABBS were transferred to the Maternity Hospital in Victoria Street on 16th March and 1st August respectively.
74. The Steward, Mr. R. H. RUFUS, has, as always, attended well to his duties, which have been on the increase.
75. The Clerical Staff remains unchanged.
76. The servants are gradually and surely deteriorating in quality.
77. There was a good deal of sickness among the staff in the form of Malaria and Dengue.
78. Dengue attacked a number of the Nursing staff.
79. Malarial Fever occurred among the Dressers and servants and one old and valuable servant died of Malignant Tertian Fever.
80. One toty had Enteric Fever and recovered.

Police Force.

REPORT BY DR. ELLIS, *Police Surgeon*.

1. The total number of the Force attending the out-patient room at the Central Station was 4,454 a considerable increase upon previous years.
2. The greatest number seen on any one day was 37, and on one day there were no patients.
3. There were fewer malingerers, in fact this crime is nearly stamped out.
4. Of patients attending the out-patient room 512 were sent to the General Hospital as in-patients, compared with 289 in 1907 and 294 in 1906. This large increase is principally due to my having sent practically all cases of fever to hospital instead of as formerly treating the slighter cases as out-patients. 205 such cases were sent of whom more than two-thirds were diagnosed as suffering from Malaria. The Stations particularly affected were Woodlands, Bukit Timah, Orchard Road, Keppel Harbour and Kampong Bahru.
5. Of the 512 men sent to the General Hospital 61 were suffering from Venereal Diseases, 205 from fevers as stated, 23 (mostly Sikhs) from Bronchitis and Asthma, 8 from Phthisis, 33 from Diarrhoea and Dysentery, 19 from Eye affections, 17 from Skin Diseases, and 6 from Beri-beri.
6. Malaria was again prevalent in August and September in the Keppel Harbour District though there was no serious epidemic amongst the Police as in 1907. Our men are now better educated as to the means of avoiding this disease.
7. Two hundred and seventy-four candidates for the Force were examined during the year, of these:—206 were accepted and 68 rejected. 21 members of the Force were examined and passed for further periods of service, two were rejected.

The causes for rejection were:—Poor Physique 35, commencing Phthisis 10, Venereal Diseases 7, Skin Disease 1, Heart Disease 6, Bronchitis and Emphysema 4, Impaired vision 4, Deformities 2, and Hydrocele 1.

8. The nationalities were:—Europeans passed 8, Malays passed 97, rejected 29; Sikhs passed 48, rejected 13; Chinese passed 48, rejected 21; Tamils passed 8, rejected 2. Indians passed 18, rejected 5.

9. The Police Stations were inspected from time to time as usual and reported upon.

Prison Hospital.

REPORT BY DR. A. S. MILLARD, *Acting Senior Medical Officer-in-charge.*

1. The sanitary condition of the Prison has been good and the health of the prisoners satisfactory.

2. The number of cases admitted to Hospital was 1,082 and the average daily sick 39·96, against 907 and 38·9 in 1907.

3. *Civil Prison.*—The total population was 4,059 and the average daily number 77. There were 20 admissions to Hospital giving a percentage of 0·49 admissions to total population. *See Table II.* The admissions were:—for Tuberculosis 4 with 3 deaths, Malarial Fever 4 with 1 death, Chronic Dysentery 2 with 2 deaths, Tetanus 2 with 2 deaths, Peritonitis 1 with 1 death, Diarrhœa 3, Laryngitis 1, Ophthalmia 1, Rheumatism 2, with no deaths.

4. *Criminal Prison.*—The total population was 4,456 and the average daily number 877. The total admissions to hospital were 978, for ratio *see Table II.* The death-rate was the lowest for the last nine years, *see Table I.* The diseases which caused most admissions and deaths amongst the Criminals were Diarrhœa 164 with no deaths, Pyrexia 92 with no deaths, Malaria 40 with 1 death, Dysentery 35 with 2 deaths, Anæmia 29 and 1 death. Tuberculosis total treated 10—died 7.

5. *House of Detention.*—The total population was 469 and the average daily number 37. The number admitted to hospital was 84 with 8 deaths. The percentage of admissions to total population was 17·9. The causes of death were Chronic Dysentery 4, Anæmia 1, Tuberculosis 1, Pneumonia 1, Heart Disease 1. Besides those admitted to hospital a great many were treated as out-patients, the majority being unfit for any kind of labour.

6. *Admissions to Hospital.*—There were 1,082 admissions which with 34 remaining from the previous year gave a total treated of 1,116. The following were some of the diseases which caused most admissions:—

Diarrhœa 190, Pyrexia 95, Ophthalmia 67, Dyspepsia 59, Ulcers 59, Dysentery 41.

7. *Dysentery and Diarrhœa.*—The following table shows admissions and deaths from these two diseases during the last three years:—

	1906.		1907.		1908.	
	—		—		—	
	<i>Admitted.</i>	<i>Deaths.</i>	<i>Admitted.</i>	<i>Deaths.</i>	<i>Admitted.</i>	<i>Deaths.</i>
Dysentery	... 205	30	88	5	41	8
Diarrhœa	... 263	6	169	—	190	—

8. *Beri-beri.*—No case occurred in the Prison and none were admitted from outside. For the first time during the last 12 years the Prison has been free from Beri-beri. (Table III.)

9. *Enteric Fever.*—Four cases occurred, 2 recovered and 2 died. The diagnosis in all cases was confirmed by blood examination, which gave positive widal reaction.

Case I.—Short Sentence No. 378, Chinese, was admitted to Prison on 25th March, 1908, to hospital on 30th March. There is no doubt that in this case the infection took place outside the Prison.

Case II.—Middle Grade No. 70, Chinese, was admitted to Prison in July, 1906, to hospital on 20th April, 1908.

Case III.—Lower Grade No. 194, was admitted to Prison on 18th March, 1907, to hospital on 20th October, 1908, also Chinese.

Case IV.—Short Sentence No. 3 *A*, Chinese, was admitted to Prison on 24th August, 1908, and to hospital on 28th October, 1908.

The last three cases were contracted in Prison but I have not been able to trace, the source of infection.

10. *Deaths*.—There were 34 against 20 in 1907. Only 17 occurred amongst the Criminals, 9 Civil and 8 Vagrants. The ratio of deaths to total treated was:—Criminals 1·6, Civil 40·9, Vagrants 9·4.

11. *Causes of Death*.—Tuberculosis 11, Dysentery 8, Enteric Fever 2, Malaria 2, Tetanus 2, Pneumonia 2, Anæmia 2, Septicæmia 1, Heart Disease 1, Peritonitis 1, Cerebral Hæmorrhage 1, Rupture of Spleen 1. The 17 deaths amongst the Vagrants and Civil Prisoners occurred in men who were admitted to Gaol with the disease from which they died.

12. *Suicide*.—There were 3. Two occurred in the Civil Prison and one in the Female Prison.

13. *Execution*.—There were 5. Chinese 2, Malay 1, Kling 1 and Cingalese 1.

14. *Staff*.—Dr. SHEPPARD was in charge from 19th May till the end of the year.

Return showing Total Number of Europeans and Natives treated in Prison Hospital, Singapore, with Deaths in 1908:—

Nationality.	Remained on 31-12-07.	Admitted in 1908.	Total treated, 1908.	Deaths, 1908.
Europeans ...	Nil	7	7	—
Natives ...	34	1,075	1,109	34

Return of Admissions for Venereal Disease to Prison Hospital, Singapore, in 1908:—

—	Number admitted.	Proportion of Prostitutes.
Males ...	50	—
Females ...	—	—

Singapore Gaol.—Table I.

Showing the Death-rate amongst the Criminals to the Average Daily Population of Criminals:—

				Death-Rate.
				—
1895	...	...	...	10·29
1896	...	...	...	6·63
1897	...	...	...	2·39
1898	...	...	...	1·62
1899	...	...	...	2·20
1900	...	...	...	4·76
1901	...	...	...	3·69
1902	...	...	...	4·27
1903	...	...	...	4·68
1904	...	...	...	5·54
1905	...	...	...	3·32
1906	...	...	...	7·84
1907	...	...	...	2·11
1908	...	...	...	1·93

Singapore Gaol.—Table II.

Shows the Percentage of Admissions to Hospital for the Criminal and Civil Prisoners separately to the Population of each:—

		<i>Criminal Prisoners.</i>	<i>Civil Prisoners.</i>
		—	—
1898	...	29'8	·06
1899	...	20'0	·08
1900	...	21'5	·44
1901	...	19'8	·45
1902	...	35'9	1'18
1903	...	24'9	1'23
1904	...	24'6	·55
1905	...	27'2	·90
1906	...	29'0	·04
1907	...	24'2	·34
1908	...	21'94	·49

Singapore Goal.—Table III.
Showing the Number of Cases of Beri-beri occurring in the Gaol each Month and the Number of them recognized within 30 Days after their Arrival in Gaol—"admitted with Disease."

	1897.		1898.		1899.		1900.		1901.		1902.		1903.		1904.		1905.		1906.		1907.		1908.	
	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.
January ...	...	...	1	...	22	2	5	2	15	4	22	2	22	3	30	5	3	1	2	...	...	...	...	...
February ...	...	...	1	1	25	4	3	1	10	5	8	3	6	4	13	3	21	*20	...	...	...	...	...	...
March ...	...	...	...	...	25	...	1	...	4	1	2	...	6	2	20	7	1	...	1	...	...	...	...	...
April ...	...	...	1	1	23	...	8	...	17	3	8	3	3	...	16	3	...	...	...	...	...	...	...	...
May ...	...	...	2	1	5	...	14	...	25	...	18	4	1	...	28	3	1	...	...	...	...	...	...	...
June ...	...	...	...	...	7	1	32	...	17	...	79	5	3	2	11	1	7	...	...	...	1	...	...	...
July ...	...	...	1	...	7	...	36	1	23	2	86	10	1	...	29	5	11	8	...	...	6	...	...	...
August ...	...	...	2	1	19	1	8	...	12	1	27	3	...	...	34	2	1	...	...	...	...	...	...	...
September ...	...	...	6	1	3	...	32	2	10	1	36	4	2	...	45	2	3	...	...	...	...	...	...	...
October ...	...	...	10	2	5	1	24	1	19	1	62	6	7	3	26	2	2	1	...	...	1	...	...	...
November ...	2	1	78	1	8	...	44	4	41	4	35	10	53	7	10	2	...	...	...	...	...	...	...	...
December ...	1	1	22	1	16	...	17	7	26	...	32	1	65	5	4	...	...	...	1	...	...	...	...	...
Total ...	3	2	124	9	165	9	224	18	219	22	415	51	169	26	266	35	50	30	4	1	8	8	...	...

* Twenty Prisoners with Beri-beri were sent to Malacca for the benefit of their health. These 20 admissions are the same individuals returned convalescent.

Tan Tock Seng's Hospital.

REPORT BY DR. H. J. GIBBS, *Resident Medical Officer.*

1. There remained on the 31st December, 1907, 536 patients, 6,684 were admitted giving a total treated of 7,220. Of this number 5,198 were discharged, 57 absconded, and 1,510 died. There remained at the end of 1908, 455 sick.

2. The average daily number of sick was 468·07.

3. The percentage of deaths to total treated was 20·91.

4. The average stay of those discharged, died and remaining at the end of 1908 were, respectively, 16·60, 12·63, and 66·55 days.

5. *Admissions.*—The number admitted was 1,378 less than that for 1907 and 961 less than that for 1906. It is difficult to account for the whole of this decrease, but a portion of it is certainly due to our not admitting, in the latter months of the year, such cases as could, with benefit, be treated as out-patients.

6. The diseases giving the largest number of admissions were beri-beri, dysentery, enteric fever, diarrhoea, syphilis, pulmonary tuberculosis, pneumonia, injuries, cirrhosis of liver, and the various forms of nephritis.

7. Owing to the prevalence of Cholera during the latter portion of the year this hospital became infected with the disease through a patient, who had been admitted four days previously, developing Cholera in Ward No. 1. Wards 2, 17 and 8 were subsequently infected. In all, 13 cases occurred (10 in December and 3 in January, 1909).

Prompt segregation of the patients in the Quarantine Camp, the quarantining of the infected wards, disinfection of these wards, the keeping together of all new admissions, the closing of the hospital to visitors, the stopping of all green food and the close supervision of the cleansing of the patients' hands and utensils with Perchloride of mercury and Jeyes fluid enabled us, in a few days over a month, to get rid of the infection.

8. The wonder is not that we were infected but that it occurred two months after the disease had made its appearance in town considering that cholera patients were daily brought and dumped into the out-patient room.

9. *Beri-beri.*—169 cases remained, 788 were admitted, 118 died thus giving a percentage of deaths of 12·33 on the total treated which is a fraction better than that for the previous year. 280 cases were transferred to the Beri-beri Hospital at Pasir Panjang; of these 19 were returned as unsuitable for treatment there.

10. Of the 118 deaths, 61 died within 24 hours, and 10 within 48 hours; were these 71 deaths from Beri-beri in its acutest form eliminated from the total deaths from this disease our death-rate would have been only 5·31 per cent. Compared with the results obtained in the Beri-beri Hospital at Pasir Panjang, this favourable rate is a little more than twice as high as the death-rate there, which was only 2·27 per cent.

11. Parboiled rice was issued to all the patients throughout the year and has maintained its reputation as a prophylactic agent; I will go a step further and say it is also curative.

12. No cases of beri-beri occurred amongst the inmates of the hospital.

13. *Malaria.*—Total treated 1,511; 1,469 were admissions and consisted of 251 Tertian, 36 Quartan, 953 of the Aestivo-Autumnal type. 33 were chronic and 196 were not differentiated.

14. Warburg's Tincture, as recommended by Dr. LEASK, in his annual report on the General Hospital for 1907, has been given with great benefit in many of our malignant cases. Where, however, we get our patients delirious and practically in a dying condition, the intramuscular injection of 10 grains of quinine bi-hydrochloride every four hours has been more satisfactory in its results.

15. The objection to Warburg's tincture is its cost, good results can and have been obtained in the more chronic malignant forms by a combination of quinine and arsenic at a very much lower cost.

16. *Dysentery*—as usual proved exceedingly fatal. 526 cases were treated with 344 deaths which means a death-rate of 65·40. The difficulty in the treatment of these cases is that they are intolerant of diet and insist on leaving hospital long before they are in a condition fit to do so only to return, in a few days, in a dying condition. Most of the cases were due to the *Amœba Coli*.

A systematic examination of the stools is now carried on with a view to treatment by serum injections, but so far Shiga's bacillus has been conspicuous by its absence.

17. *Pulmonary Tuberculosis*.—349 were treated with 237 deaths which is equivalent to 67·91. The majority of these cases are hopeless on admission; others as in the case of dysentery patients, leave hospital when urgent symptoms are relieved, to return in a moribund condition.

18. *Enteric Fever*.—94 cases with 53 deaths. Death-rate is equivalent to 56·38.

This death-rate could be lowered with efficient nursing. The best dressers in the hospital are put on duty over these cases, but their attention falls short of that of trained female nurses.

19. *Syphilis*.—499 cases with 10 deaths which is equivalent to a two per cent death-rate. The majority of the cases do well on internal treatment with mercury and iodide of potassium. During the last three months of 1908 the treatment of the more serious cases with intramuscular injections of metallic mercury in emulsion as recommended by Colonel LAMBKIN of the R. A. M. C. has been attended with gratifying results.

20. Of the 6,684 admissions no fewer than 1,148 were addicted to the opium and morphia habits.

The actual figures are, opium smokers and eaters, 1,105, morphia injectors 43.

21. Quite recently an order was issued by the Secretariat that a report of every morphia injector should be forwarded to the Chief Police Officer with a view to arresting and punishing the individual who injected these unfortunates, and thus limiting the practice to those legally qualified to do so.

22. The seasonal influence on the number of admissions and the mortality is shown in the subjoined table:—

MONTH.			Admissions.		Deaths.		Mortality.	
			1907.	1908.	1907.	1908.	1907.	1908.
January	...	...	624	570	87	90	13·94	15·79
February	...	...	511	502	74	97	14·48	19·32
March	...	...	595	508	99	90	16·64	17·72
April	...	...	585	548	108	106	18·46	19·56
May	...	...	664	525	137	133	20·63	25·3
June	...	...	751	647	133	156	17·71	24·11
July	...	...	783	542	142	155	18·14	28·41
August	...	...	780	579	169	139	21·66	24·01
September	...	...	503	546	128	145	25·44	26·56
October	...	...	557	566	135	117	24·24	20·69
November	...	...	634	594	127	145	20·03	24·53
December	...	...	542	563	128	137	23·61	22·56

I have inserted this table for purposes of comparison with that introduced last year. Statistically it is of poor value because the deaths shown are of the total treated and not of the admissions only, as one glancing at the table would be led to believe. It is, however, of value in affording an indication as to which of the 12 months were the most unhealthy in this Settlement.

23. *Discharges*.—Of the 5,198 who were discharged, 3,116 are shown as having been cured, 2,113 as relieved and 26 as not improved.

24. *Deaths*.—In judging of the total deaths of 1,510 with a death-rate as already stated of 20·91, it should be borne in mind that no fewer than 397 died within 24 hours and 140 within 48 hours of admission, so that no less than 35·56 of those who died were admitted in practically a dying condition.

25. As stated in previous years the low vitality of the patients and the advanced stage of the disease on admission together with the want of adequate nursing, are responsible for the continuous high death-rate. One other factor should be now remembered and that is, as has already been stated, the admission of cases suitable only for in-door treatment. This, though it should not seriously affect the number of deaths, reduces the number of admissions and thus raises the death-rate. There were, however, 53 more deaths in 1908 than in 1907.

26. *Surgical Aspect*.—Two hundred and ninety-six operations were in all performed under Anæsthetics. They consisted as in former years, of laparotomy, herniotomy for the relief of strangulated and the radical cure of inguinal hernia, the opening of liver abscesses, amputations of the limbs, trephinings of the skull, tracheotomy, the resection of ribs for the drainage of empyemata, cholecystotomy castration, the radical cures of hydroceles and hæmatoceles by excision of their sacs, the removal of elephantoid scrotum and of tuberculous glands in the neck. The excisions of the head of the humerus and the elbow joint and of lipomata, cataract extractions, iridectomies, operations for entropion and synblepharon rhinoplasty, enterroraphy; the radical cure of hæmorrhoids, the curretting of sinuses and carious bone, Thiersch's skin grafting, the enucleation of inguinal glands, the incision and drainage of large abscess, suppurating bursæ and knee joints; circumcisions, the laying open and curretting of fistulæ-in-ano. Neurectomy, external urethrotomy and the suturing of extensive wounds, abdominal and others. In addition to the above numerous minor operations were performed in the wards.

27. *Malignant Growths*.—Five remained, 26 were admitted; 17 died and two remained at the end of 1908. The majority of the cases were inoperable, either from the situation of the growth or the advanced stage of it on admission.

28. The appointment of a Pathologist to the hospital now enables us to send in an accurate cause of death and is very instructive in clearing up clinical difficulties.

29. *Europeans*.—The total number treated was 206 and the number of deaths 15, which is equivalent to a 7·28 percentage death-rate.

Alcoholism, Malaria, Venereal Diseases, Pulmonary Tuberculosis and Injuries were the chief diseases from which these patients suffered.

The following are the nationalities with their respective numbers who were admitted into this ward:—English 38, Scotch 17, Irish 6, German 13, French 2, Portuguese 2, Australian 1, Dutch 7, Eurasian 44, American 6, Japanese 39, Russian 3, Ceylonese 6, Europeans not differentiated 3, Manila 1, Italian 2, Greek 2, Jew 1, Norwegian 1, Austrian 2, Armenian 1, Boer 1, Dane 2, Cingalese 2, West Indians 3, Cretan 1.

30. *Medico-legal*.—Five hundred and sixty-seven cases were sent in by the Police. As in previous years they consisted of contusions, abrasions, lacerated, incised and contused wounds of various parts of the body, fractures of the ribs, jaws and long bones and cases of rape and sodomy.

31. *Coroner*.—One hundred and forty-four inquests, injuries and views were held by the Coroner.

From the attached table, as was to be expected, it will be seen that the Chinese element contributed 81·25 of the total.

32. *Visitors*.—The Principal Civil Medical Officer visited on 26 occasions, His Excellency the Governor once, the Colonial Secretary twice and the Members of Committee 9 times.

33. *Personnel*.—I resumed charge of the hospital on the 9th October, Drs. HENNESSY and MILLARD attending to my duties for the greater part of the year during my absence at the Port Health Office.

Messrs. HOGAN, SINHA, WILLIAMS, D'CRUZ and GOSHAL, have been attached as Assistant Surgeons to the hospital and have done good work.

The Hospital being better staffed, the wards were for clinical purposes thrown open to the students of the Medical School who were not slow in availing themselves of the opportunities offered to improve their professional knowledge by attending the clinical demonstrations and the operating theatre, as well as assisting in the dressings and clerking in the wards.

Memorandum of Inquests, Inquiries and Views held at Tan Tock Seng's Hospital or elsewhere but Bodies sent there for Autopsy during the Year 1908.

MONTH.		Chinese.		Javanese.		Tamil Hindu.		Tamil Islam.	Malay.	Tamil Christian.	European.	Japanese.	Bengali.	TOTAL.
		M.	F.	M.	F.	M.	F.	Male.	Male.	Male.	Male.	Female.	Male.	
January	...	5	...	1	1	1	...	...	...	...	...	...	1	9
February	...	7	1	...	...	1	...	...	...	...	...	1	...	10
March	...	7	...	...	...	...	...	...	...	...	...	...	...	7
April	...	6	...	1	...	1	...	...	...	...	...	...	...	8
May	...	10	2	...	...	...	...	1	...	...	...	...	...	13
June	...	11	1	1	...	...	1	...	...	1	...	...	...	15
July	...	7	...	...	...	...	...	...	...	...	...	...	2	9
August	...	5	...	...	...	1	...	...	...	...	...	...	...	6
September	...	8	...	...	...	2	...	...	...	...	1	...	...	11
October	...	14	...	...	1	1	1	1	1	...	...	...	...	18
November	...	14	...	...	1	2	...	...	...	...	...	...	...	17
December	...	19	1	...	...	1	...	...	...	...	...	...	...	21
Total	...	113	5	3	3	10	1	2	1	1	1	1	3	144

Leper Asylum.

Two males and 18 females remained at the end of 1907. 42 males and 10 females were admitted in 1908. 3 males and 1 female were discharged, 20 males were transferred to the Leper Asylum at Pulau Jerejak, 4 males and 3 females absconded, and 7 males and 2 females died during the year.

—	Remain- ed.	Admit- ted.	Total.	Dis- charged.	Trans- ferred.	Abscon- ded.	Died.	Remain- ing.
Male ...	2	42	44	3	20	4	7	10
Female...	18	10	28	1	...	3	2	22

During the second half of 1908 3 females suffering from Tubercular Leprosy were selected as suitable cases for treatment with Nastin. The results have so far not been encouraging. It had to be abandoned in two of the cases. In the third, though a slight improvement in the flattening of the Tubercles on the forehead was noticed and the patient expressed herself as feeling better, yet her general appearance leaves much to be desired.

A prolonged course of this treatment will be necessary before a definite statement, one way or the other, can be made.

Quarantine Camp.

1. One case of small-pox remained under treatment at the end of 1907.

2. One hundred and twenty-nine males and 9 females were admitted during 1908 for the following diseases:—

Chicken-pox 2, Cholera 45, Dysentery 10, Enteric Fever 1, Malarial Fever 10, Measles 7, Plague 5, Pneumonia 3, Pyrexia 1, Small-pox 26, Secondary Syphilis 1, Syncope 1, Phthisis 1, Chronic Bronchitis 1, Cirrhosis of Liver 2, Diarrhœa 2, Gastro Enteritis 2, Enteritis 6, Entero Colitis 1, Acute Hæmorrhagic Parotiditis 1, Nephritis 1, Cellulitis 1, and cases under observation 8. Of the 139 so treated, 76 died from the following diseases:—Cholera 41, Dysentery 6, Enteric Fever 1, Malarial Fever 6, Plague 5, Pneumonia 2, Small-pox 3, Syncope 1, Cirrhosis of Liver 2, Gastro Enteritis 1, Enteritis 4, Entero Colitis 1, Nephritis 1, and Cellulitis 1.

3. *Buildings.*—The roofs of the two Small-pox wards were renewed with attap. Old planks in flooring and sides replaced by new ones and both wards tarred and limewashed. The kadjang sides of the two Cholera wards were renewed, a new galvanized iron corrugated fence has been erected on a concrete basis all around the small-pox portion of the Camp and a similar fence has been fixed between the male and female wards occupied by small-pox patients.

Pauper Female Ward at Kandang Kerbau.

REPORT BY ASSISTANT SURGEON MR. C. V. NORRIS.

1. At the beginning of the year 22 patients remained in Hospital, there were 142 admissions during the year.

2. The following table gives the nationality of the admissions:—

European	...	...	...	...	...	1
Eurasian	...	...	...	...	...	17
Malay	...	...	...	...	...	16
Indian	...	...	...	...	...	36
Chinese	...	...	...	...	...	66
Other	...	...	...	...	...	6

3. The chief causes for admissions were :—

Beri-beri	...	...	...	8 cases.	2 deaths.
Bronchitis	...	...	...	9 „	2 „
Diarrhœa	...	...	...	8 „	7 „
Bright's Disease	...	...	...	8 „	7 „

4. There were 42 deaths during the year, 14 occurring within 3 (three) days of admission.

Lunatic Asylum.

REPORT BY DR. W. G. ELLIS, *Medical Superintendent.*

1. The average number of patients resident during the year was 326 (males 265, females 61) an increase of 34 as compared with the previous year.

2. On the 31st December, 1907, there remained 296 patients (males 241, females 55). There were admitted in 1908 males 175, females 37, making the total treated 416 males and 92 females. The maximum and minimum numbers in the Asylum on any one day of the year were, respectively, 349 and 294.

3. Of the 336 patients remaining on the 31st December, 1908 :—

Males. Females.

172	35	...	...	Came from Singapore.
68	15	...	...	„ „ Penang.
21	4	...	...	„ „ Malacca.
8	2	...	...	„ „ Province Wellesley.
2	1	...	...	„ „ Johore.
2	...	...	...	„ „ Seremban.
2	...	...	...	„ „ British North Borneo.
4	...	...	...	„ „ Labuan.

4. There were under treatment on the 31st December, 1907, 19 criminal lunatics and 7 lunatic criminals; 4 criminal lunatics and 5 lunatic criminals were admitted during 1908, making a total of 35 criminals treated during the year. Of these, 5 have been discharged recovered, 2 died, the sentence has expired in 6, and 22 remain under treatment.

5. Evidence of past and present venereal disease in the admissions, as in previous years, is common. Over 20 per cent were sufferers, in 10 of these the affection was the cause of the insanity, and doubtless it was a predisposing cause in many other cases. Offensive trades are regulated, zymotic diseases are searched for and isolated by the health authorities, but venereal disease is allowed to run rife amongst the population with practically no check, and this in a town with a huge preponderance of the male sex, and with a populace, to whom to the majority, prostitution is no more disgraceful than is a visit to the public house in England for a glass of beer. Under existing conditions an increase rather than a decrease of insanity from this cause is to be expected.

6. The occurrence of cases of alcoholic insanity among Chinese is increasing. Besides the ordinary forms we are having cases sent us that remain acutely maniacal from 1 to 6 weeks and then recover rapidly and these are not cases of Delirium Tremens. All give the history of non-addiction to alcohol, a big burst in town where they drank the common trade brandy to unconsciousness, and a recovery of their senses in the Asylum. Four out of five recent cases recovered within ten days and the fifth in six weeks. The changeable hallucinatory symptoms, the intense fear, the nocturnal exacerbations, obvious signs of Delirium Tremens were wanting in these cases, three had grandiose delusions, two suffered from delusions of persecution not strongly pronounced, one was verging on dementia, and but one was in any way violent or markedly excitable. As the brandy they had consumed probably cost about 1/- a bottle it is possible that it contained other poison or poisons than is usually contained in good sound spirits. What the finale of the present agitation as to the consumption of opium in Asia will be is yet to be learnt, but if cheap alcohol takes its place I dread to imagine the results.

7. It may not be out of place to chronicle here, following my last two paragraphs, that since my last report we have admitted a case of general paralysis of the insane in the person of a pure-bred Chinaman, the second case of the disease that I have met with in an Asiatic during my 21 years charge of this Asylum; the first case occurred in 1906.

8. There were 10 abscondments, but as a large number of patients have been working outside the Asylum escape was easy especially when taking into consideration the irradicable carelessness of the native attendant. Great care was exercised that none but convalescent or quiet and harmless patients were so employed. Seven of the 10 were convalescent and would have been discharged at the next meeting of the Visitors. One a case of Primary Dementia, returned to his parents' house and they sent him to China. One was re-admitted after a lapse of three weeks. One has not been heard of, he was suffering from advanced Heart Disease and has probably died.

9. But one patient was admitted with a craving for opium in any form, his insanity was due to a specific cause in no way connected with the opium habit, and he made a quick recovery. His was a case of depressive insanity with auditory hallucinations of a persecutory nature. One other patient intelligent enough to answer the question admitted being an opium smoker but he showed no craving for the drug.

Two patients had scars of old morphia injections, the habit having been broken many years previously. One was a case of Mania with heart disease and is still in the Asylum in poor health with failing compensation though mentally he is considerably improved. The other was a case of progressive Dementia who died from Suppurative Peritonitis following ulcerative Enteritis.

10. During the year under report there were 49 cases of Dysentery with 10 deaths, and 23 cases of Diarrhoea with no death. With few exceptions these cases occurred in the over-crowded blocks of the lower levels of the Asylum. Under existing conditions it is impossible to isolate patients suffering from disease of any description as all available accommodation is urgently needed and has to be used. Three deaths occurred from Tubercular Enteritis. Experience has shown us that with any marked overcrowding bowel disease is bound to break out and run rife notwithstanding all available precaution.

11. I have to report 6 serious casualties. A suicidal patient, whilst the attendant was at the end of the Ward, climbed up a window and threw himself down suffering a fracture of the skull. He succumbed to his injuries three days afterwards.

An old chronic maniac accidentally fell down sustaining a fracture of the femur. He died of Hypostatic Pneumonia shortly after.

A senile maniac fell accidentally and fractured his lower jaw. He recovered.

A quiet-working patient slipped and fell dislocating his right shoulder, this was easily reduced and he rapidly recovered.

A harmless dement grabbed a bottle of creosol from the toty and drank from it before he could be stopped, dying in about 12 hours. The toty was in fault in taking the undiluted disinfectant into the Ward against orders. He was dismissed.

On the 3rd of June a female patient suffering from acute mania escaped at night from one of the Beri-beri wards at Pasir Panjang, on the sea coast, used temporarily as a ward for the insane during re-construction of the female asylum, escape from this ward is unavoidably easy. The body of this Chinese patient was found on the fore-shore in the morning, death being due to drowning. I did not consider this a case of suicide but imagine that she fell off the sea wall in the dark whilst trying to escape. The native ayah on duty at the time saw nothing and denied having been asleep. Of our staff of seven ayahs, one has six years' service, two have two years, the remaining four have under six months. The pay of these women has been raised but it is still difficult, in fact impossible, to obtain reliable native female attendants.

Three determined attempts at suicide, 2 by hanging, and 1 to cut his throat by a sharpened piece of tin, were frustrated by attendants. It is undoubted that the Chinese are a race most prone to suicide. We try to give a reasonable amount of supervision to suicidal patients, unfortunately I have not a sufficiently big staff to appoint special attendants to the more determined, and the general plan and structure of this Asylum makes the eluding of attendants somewhat easy.

12. During my absence on leave from the 17th January to my return on the 21st of May the Asylum was administered by Dr. FREER, Principal of the Medical School.

13. Some of the statistical tables recommended for Asylum use by the English Lunacy Commissioners are attached to this report.

14. *Admissions*.—One hundred and seventy-five male and 37 female patients were admitted during the year:—

123 males and 22 females from Singapore.

26	„	7	„	Penang.
14	„	4	„	Malacca.
3	„	2	„	Province Wellesley.
2	„	2	„	Johore.
4	„	0	„	Labuan.
1	„	0	„	British North Borneo.
1	„	0	„	Perak.
1	„	0	„	Siam.

15. Table *XI* shows the description of mental disease from which they were suffering. The physical condition of many was greatly impaired upon admission, 11 died with under a month's residence, and Table *VI* shows that 35 died with under six months' residence.

16. *Discharges*.—Sixty-four patients were discharged recovered, giving a recovery rate of 30·19 per cent on the admissions, the lowest rate since I first arrived in the Colony in 1888. I have noticed neither variation in class nor type of patient admitted, and there can be no doubt that this poor result is due to the overcrowding of the Asylum and the consequent difficulty in allotting suitable employment to patients, one of the best aids to mental recovery.

17. Twenty-nine patients have been discharged improved and 4 not improved to the care of their friends.

18. *Deaths*.—Forty-five males and 20 females died in 1908 giving a percentage of 19·93 on the average daily number resident, a rate of ·41 above that for the previous year.

19. Forty per cent of the total deaths occurred during the last quarter of the year at the time when the overcrowding became marked.

20. Table *V* shows the causes of death with the age at death.

21. *Nationalities*.—There were remaining in the Asylum on the 31st December, 1908:—

				<i>Males.</i>	<i>Females.</i>
				—	—
British	...	...	...	2	0
Eurasian	...	...	...	10	2
Japanese	...	...	...	0	2
Jew	...	...	...	1	0
Malay	...	...	...	9	5
Tamil	...	...	...	19	7
Bengali	...	...	...	3	0
Bombay	...	...	...	1	0
Cingalese	...	...	...	1	0
Javanese	...	...	...	7	2
Celebes	...	...	...	1	0
Phillipino	...	...	...	1	0
Siamese	...	...	...	1	1
Arab	...	...	...	1	0

*Chinese.**Males. Females.*

			—	—	
Hokkien	...	...	...	72	11
Teochew	...	...	...	51	6
Cantonese	...	...	...	28	19
Kheh ...	...	...	...	36	2
Hylam ...	...	...	...	26	0
Lui Chu	...	...	...	7	0
Kow Chu	...	...	...	2	0

22. *Industries.*—During the year, 5,280 yards of cloth have been woven from which has been made 74 jackets, 84 trousers, 1,077 jackets for natives, 1,025 trousers for natives, 269 jackets for females, 121 sarongs, and 17 mattress covers. Canvas has been cut up and made into 14 combination suits, 56 rugs, and 5 chair covers. Sixteen cotton blankets were woven. The patients have also made a new croquet lawn and have filled in a large swamp situated on the golf links immediately outside the Asylum gates.

23. About 75 per cent of the patients have been usefully employed throughout the year.

24. *General.*—The revenue derived from paying patients amounted to \$3,760.15, sale of stores, etc., produced \$41.24.

25. The monthly cost of maintenance per head has been \$11.74 $\frac{2}{3}$ exclusive of Public Works Department expenditure, compared with \$12.35 for the previous year and \$12.62 for 1906.

26. I am pleased to be able to state that the whole staff of officers have worked well throughout an exceptionally busy year.

TABLE 1.
LUNATIC ASYLUM.

Table showing the Admissions, Discharges and Deaths during the Year 1908.

—	Male.	Female.	Total.	Male.	Female.	Total.
In the Asylum on 1st January, 1908	...	...	...	241	55	296
Cases admitted :—						
First Admissions	167	34	201	...	...	...
Not First Admissions	8	3	11	175	37	212
Total Cases under care during the year	...	...	...	416	92	508
Cases Discharged :—						
Recovered	57	7	64	..	...	...
Relieved	23	6	29	...	...	...
Not Relieved	3	1	4	...	...	...
Absconded	9	1	10	...	...	...
Died	45	20	65	...	...	...
Total Cases Discharged and Died during the year	...	...	...	137	35	172
Remaining in the Asylum on 31st December, 1908	...	...	...	279	57	336
Average number resident during the year	...	...	...	265	61	326

TABLE II.
LUNATIC ASYLUM.

Table showing the Admissions, Re-admissions, Discharges and Deaths from 31st December, 1888, to 31st December, 1908.

—	Male.	Female.	Total.	Male.	Female.	Total.
Remaining on the 31st December, 1888 ...	...	...	...	176	32	208
Persons admitted during the period ...	...	...	...	3,124	511	3,635
Re-admissions ...	...	...	...	328	67	395
Total Cases treated ...	...	...	...	3,628	610	4,238
Discharged Cases:—						
Recovered ...	1,443	186	1,629	...	...	...
Relieved ...	360	88	448	..	...	...
Not Improved ...	106	39	145	...	...	...
Absconded ...	109	17	126	...	...	...
Died ...	1,331	223	1,554	...	...	...
Total Cases Discharged and Died since 31st December, 1888 ...	...	...	...	3,349	553	3,902
Remaining in Asylum on 31st December, 1908 ...	...	...	...	279	57	336

TABLE III.
LUNATIC ASYLUM.

Table showing the Admissions, Discharges and Deaths, with the Mean Annual Mortality and Proportion of Recoveries per cent on the Admissions for the Years 1886 to 1908 inclusive.

YEAR	Admitted.			Discharged.						Absconded.			Died.			Remaining on 31st December of each Year.			Average Number Resident.			Percentage of Recoveries on Admissions.			Percentage of Deaths on the Average Number Resident.					
				Recovered.			Relieved.			Not Improved.																				
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
1886	...	...	164	...	...	...	...	...	...	...	...	...	...	...	59	23	192	...	...	...	...	...	...	...	...	...	...
1887	173	17	190	...	...	...	...	...	...	...	...	...	...	...	77	29	207	183	27	210	...	...	...	...	...	...	...
1888	153	23	176	35	...	...	...	...	...	...	...	...	...	...	84	32	208	190	35	225	22'97	39'28	25'00	34'76	43'97	25'00	36'49
1889	186	24	210	67	...	...	...	...	...	...	...	...	...	...	92	40	236	202	35	237	36'02	25'00	34'76	36'69	17'14	40'70	
1890	224	30	254	87	7	94	23	1	24	4	1	5	74	6	80	196	48	205	186	41	227	38'83	23'33	37'00	77'40	38'18	33'37			
1891	162	30	192	61	13	74	12	3	15	3	2	5	145	11	156	157	49	210	153	47	200	37'65	43'33	38'54	49'67	23'40	69'72			
1892	158	29	187	71	14	85	15	4	19	6	1	7	76	11	87	161	49	210	153	47	200	37'65	43'33	38'54	49'67	23'40	69'72			
1893	184	33	217	65	7	72	8	5	13	9	5	11	43	14	57	179	43	222	170	44	214	44'94	48'27	48'45	25'29	31'82	43'50			
1894	169	29	198	69	11	80	21	4	25	4	3	7	73	16	89	239	48	287	244	52	296	40'83	37'93	40'41	29'92	30'77	18'89			
1895	173	34	207	70	9	79	45	10	55	9	1	10	99	13	112	180	46	226	206	46	252	40'40	26'47	38'16	48'06	28'26	44'42			
1896	202	28	230	86	16	102	7	2	9	2	1	3	79	6	85	205	49	254	183	50	233	42'57	57'14	44'35	43'17	12'00	36'48			
1897	122	26	148	62	9	71	18	7	25	2	...	...	72	9	81	171	50	221	181	47	228	50'86	34'61	47'97	39'77	19'15	33'52	
1898	137	24	161	61	7	68	16	3	19	17	6	23	85	10	95	125	48	173	156	52	208	44'52	29'17	42'24	54'49	19'23	45'17			
1899	130	32	162	51	12	63	14	3	17	4	1	5	56	9	65	123	55	178	131	53	184	39'23	31'81	38'80	42'75	16'98	35'32			
1900	157	30	187	54	5	59	9	1	10	2	2	4	93	30	123	118	47	165	128	52	180	34'39	16'60	31'02	72'66	57'69	68'30			
1901	154	21	175	74	10	84	18	2	20	1	1	2	46	10	56	127	45	172	118	46	164	43'51	47'62	48'00	38'98	21'52	34'15			
1902	143	16	159	82	8	90	11	1	12	1	1	2	38	4	42	133	46	179	130	44	174	57'34	50'00	56'60	29'23	9'09	24'14			
1903	191	30	221	70	7	77	15	2	17	10	1	11	44	11	55	179	52	231	160	49	209	36'64	23'33	34'84	27'50	22'44	26'31			
1904	223	31	254	90	14	104	20	3	23	9	2	11	48	11	59	232	51	283	213	55	268	40'36	45'16	40'94	22'53	20'00	22'01			
1905	200	28	228	101	5	106	22	9	31	8	7	15	54	13	67	235	43	278	239	48	287	50'50	17'80	42'10	22'59	27'08	23'34			
1906	199	32	231	85	11	96	28	10	38	4	1	5	71	4	75	238	48	286	245	45	290	42'71	34'37	41'56	28'98	8'88	25'77			
1907	163	34	197	80	8	88	22	8	30	4	7	4	47	10	57	241	55	296	243	49	292	49'08	23'53	44'67	19'34	20'40	19'52			
1908	175	37	212	57	7	64	23	6	29	3	1	4	45	20	65	279	57	336	265	61	326	32'57	18'92	30'19	16'98	32'78	19'93			

TABLE IV.

LUNATIC ASYLUM.

Table showing the History of the Annual Admissions since 1889, with the Discharges and Deaths, and the Numbers of each Year Remaining on 31st December of the Year reported on.

YEAR.	Admitted.				Of each Year's Admissions, Discharged and Died in 1908.										Total Discharged and Died of each Year's Admissions to 31st December, 1908.										Remaining of each Year's Admissions, 31st December, 1908.		
	New Cases.		Re-admissions.		Recovered.		Relieved.		Not Improved.		Absconded.		Died.		Recovered.		Relieved.		Not Improved.		Absconded.		Died.		Male.	Female.	Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
Prior to 1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1889	197	26	27	254	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
1890	137	25	25	192	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
1891	144	26	14	187	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1892	170	27	14	217	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1893	157	24	12	198	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1894	156	30	17	207	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1895	186	21	16	230	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1896	98	21	24	148	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1897	129	21	8	161	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1898	118	30	12	162	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1899	143	29	14	187	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1900	137	21	17	175	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1901	129	14	14	159	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1902	176	27	15	221	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1903	201	24	22	254	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1904	177	26	23	228	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1905	176	30	23	231	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1906	148	29	15	197	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1907	167	34	8	212	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1908	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE V.
LUNATIC ASYLUM
Showing the Causes of Deaths during the Year 1908, together with the Ages at Deaths.

CAUSES OF DEATH.	Under 15 years.		15 and under 20 years.		20 and under 25 years.		25 and under 30 years.		30 and under 35 years.		35 and under 40 years.		40 and under 45 years.		45 and under 50 years.		50 and under 55 years.		55 and under 60 years.		60 and under 65 years.		65 and under 70 years.		70 and under 75 years.		75 and under 80 years.		TOTAL.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
INFECTIVE DISEASES.—																														
Beri-beri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gangrene (right foot)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria, Pernicious	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tertian	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis, Secondary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE NERVOUS SYSTEM.—																														
Cerebral Hæmorrhage	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MENTAL DISEASES.—																														
Congestion of the brain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Softening of the brain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic disease of the brain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(not otherwise defined)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mania, acute (exhaustion from)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE CIRCULATORY SYSTEM.—																														
Valvular Disease, Heart (Mitral)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carried over	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	40	16	56																											

TABLE V.—Continued.

LUNATIC ASYLUM.

Showing the Causes of Deaths during the Year 1908, together with the Ages at Deaths.

CAUSES OF DEATH.	Under 15 years.			15 and under 20 years.			20 and under 25 years.			25 and under 30 years.			30 and under 35 years.			35 and under 40 years.			40 and under 45 years.			45 and under 50 years.			50 and under 55 years.			55 and under 60 years.			60 and under 65 years.			65 and under 70 years.			70 and under 75 years.			75 and under 80 years.			Total.				
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.								
<i>Brought forward</i>	2	...	2	5	3	8	13	4	17	5	2	7	8	1	9	3	4	7	2	1	3	1	...	1	1	1	2	40	16	56					
DISEASES OF RESPIRATORY SYSTEM.—																																															
Pulmonary Apoplexy	1	...	1	1	...	1				
DISEASES OF THE DIGESTIVE SYSTEM.—																																															
Intestinal Obstruction	1	1				
Cirrhosis of the Liver	1				
Suppurative Peritonitis	1	...	1	1			
Abscess of Abdomen	1			
DISEASES OF THE URINARY SYSTEM.—																																															
Bright's Disease	1	1			
Drowning	1	1		
Fracture of the skull	1	1		
Creosol Poisoning	1		
TOTAL	2	1	3	5	5	10	15	4	19	6	2	8	8	2	10	4	4	8	2	1	3	1	...	1	...	1	45	20	65

TABLE VI.

LUNATIC ASYLUM.

Table showing the Length of Residence of those Discharged, Recovered and of those who Died, during the Year 1908.

Length of Residence.				Recovered.			Died.		
				Male.	Female.	Total.	Male.	Female.	Total.
Under one month	...	...	...	4	1	5	8	3	11
From one to three months	...	...	...	19	...	19	10	4	14
„ three to six months	...	...	...	20	1	21	7	3	10
„ six to nine months	...	...	...	4	2	6	2	3	5
„ nine to twelve months	...	...	...	5	1	6	4	1	5
„ one to two years	...	...	...	5	1	6	4	4	8
„ two to three years	...	...	...	...	...	...	2	1	3
„ three to five years	...	...	...	...	1	1	3	1	4
„ five to seven years	...	...	...	...	...	...	2	...	2
„ seven to ten years	...	...	...	...	...	...	3	...	3
„ ten to fifteen years	...	...	...	...	...	...	...	...	...
„ fifteen to twenty-five years	...	...	...	...	...	...	...	...	...
TOTAL				57	7	64	45	20	65

TABLE X-a.
LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1908.

CAUSES.	ADMISSIONS.											
	Number of Instances in which a Cause was Assigned.											
	Admissions :—Male 175. Female 37. Total 212.											
	As Predisposing Cause.			As Exciting Cause.			As Predisposing or exciting Cause. *			Total. †		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends)	1	...	1	1	...	1
Adverse Circumstances (including business anxieties and pecuniary difficulties)	1	1	2	...	2	2	1	3
Mental Anxiety and Worry and Overwork	1	1	1	...	1	2	...	2	3	1	4
Religious Excitement
Love Affairs (including seduction)
Fright and Nervous Shock
<i>Physical.</i>												
Intemperance in Drink	9	9	5	...	5	...	...	...	14	...	14
Venereal Disease	7	3	10	...	...	...	7	3	10
Self-abuse
Sunstroke
Accident or Injury
Pregnancy
Parturition and the Puerperal State
Uterine and Ovarian Disorders	2	2	...	...	..	...	2	2
Lactation
Puberty	3	4	7	...	...	...	...	...	3	4	7
Epilepsy	1	...	1	...	...	...	1	...	1
Privation and Starvation
Heart Disease	19	7	26	...	...	...	...	...	19	7	26
Phthisis	3	...	3	3	...	3
Malarial Fever	10	...	10	10	...	10
Typhoid Fever	2	...	2	2	...	2
Other Bodily Diseases or Disorders ...	12	3	15	...	2	2	...	...	...	12	5	17
Previous Attacks	11	6	17	...	...	...	...	...	...	11	6	17
Old Age	3	3	6	...	...	...	...	...	...	3	3	6
Merphria Habit
Hereditary Influences ascertained ...	3	...	3	...	...	...	...	...	...	3	...	3
Congenital Defect
Indian Hemp Smoking	1	...	1	...	...	...	1	...	1
Unknown	77	12	89

* Where these could not be distinguished. † Some of the admissions are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the admissions.

TABLE X-b.

LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1908.—Continued.

CAUSES.	DISCHARGES.											
	Number of Instances in which a Cause was Assigned.											
	Discharges :—Male 83. Female 14. Total 97.											
	As Predisposing Cause.			As Exciting Cause.			As Predisposing or Exciting Cause.*			Total. †		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends) ... ..	...	...	...	2	1	3	...	...	...	2	1	3
Adverse Circumstances (including business anxieties and pecuniary difficulties) ...	...	...	...	...	...	...	...	...	...	...	...	...
Mental Anxiety and Worry and Overwork ...	...	...	...	2	1	3	...	...	...	2	1	3
Religious Excitement ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Love Affairs (including seduction) ...	...	...	...	...	...	...	...	...	...	...	...	...
Fright and Nervous Shock ... ..	...	...	...	...	...	...	...	...	...	...	...	...
<i>Physical.</i>												
Intemperance in Drink	10	...	10	5	...	5	...	...	...	15	...	15
Venereal Disease	4	...	4	3	...	3	...	...	...	7	...	7
Self-abuse ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Sunstroke ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Accident or Injury ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Pregnancy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Parturition and the Puerperal State ...	...	...	...	...	...	...	...	...	...	...	...	...
Uterine and Ovarian Disorders ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Lactation ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Puberty ... ..	...	2	2	...	...	...	...	...	...	...	2	2
Epilepsy ... ..	...	...	...	1	1	2	...	...	...	1	1	2
Privation and Starvation	1	...	1	...	...	...	...	...	...	1	...	1
Heart Disease	3	...	3	...	...	...	...	...	...	3	...	3
Phthisis ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Malarial Fever ... ..	...	...	...	9	...	9	...	...	...	9	...	9
Typhoid Fever ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Other Bodily Diseases or Disorders ...	3	...	3	...	...	...	...	...	...	3	...	3
Previous Attacks	4	5	9	...	...	...	...	...	...	4	5	9
Old Age ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Morphia Habit ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Hereditary Influences ascertained ...	2	1	3	...	...	...	...	...	...	2	1	3
Congenital Defect ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Indian Hemp Smoking ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Unknown ... ..	...	...	...	...	...	...	...	...	...	46	6	52
Belladonna poisoning ... ..	...	...	...	...	...	...	...	...	...	...	...	...

* Where these could not be distinguished. † Some of the discharges are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the discharges.

TABLE X-c.

LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1908.—Concluded.

CAUSES.	DEATHS.											
	Number of Instances in which a Cause was Assigned.											
	Deaths:—Male 45. Female 20. Total 65.											
	As Predisposing Cause.			As Exciting Cause.			As Predisposing or Exciting Cause.*			Total. †		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends) ... ..	...	...	...	...	1	1	...	...	...	...	1	1
Adverse Circumstances (including business anxieties and pecuniary difficulties) ...	1	1	2	...	...	...	...	...	...	1	1	2
Mental Anxiety and Worry and Overwork ...	...	...	...	...	...	...	...	...	...	...	...	...
Religious Excitement ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Love Affairs (including seduction) ...	...	...	...	...	...	...	...	...	...	...	...	...
Fright and Nervous Shock ... ..	...	...	...	...	...	...	...	...	...	...	...	...
<i>Physical.</i>												
Intemperance in Drink ... ..	...	...	...	1	1	2	...	...	...	1	1	2
Venereal Disease	7	1	8	2	1	3	...	...	...	9	2	11
Self-abuse ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Sunstroke ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Accident or Injury ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Pregnancy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Parturition and the Puerperal State ...	...	...	...	...	1	1	...	...	...	...	1	1
Uterine and Ovarian Disorders ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Lactation ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Puberty ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Privation and Starvation	1	...	1	...	...	...	...	...	...	1	...	1
Heart Disease	7	3	10	...	...	...	...	...	...	7	3	10
Phthisis	5	...	5	1	2	3	...	...	...	6	2	8
Malarial Fever ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Typhoid Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Other Bodily Diseases or Disorders ...	2	...	2	...	...	...	...	...	...	2	...	2
Previous Attacks	4	1	5	...	...	...	...	...	...	4	1	5
Old Age	2	1	3	...	...	...	...	...	...	2	1	3
Morphia Habit ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Hereditary Influences ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Defect ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Indian Hemp Smoking ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Unknown ... ..	...	...	...	...	...	...	...	...	...	19	9	28

* Where these could not be distinguished. † Some of the deaths are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the deaths.

TABLE XI.

LUNATIC ASYLUM.

Showing the Form of Mental Disorder on Admissions, Recoveries and Deaths, of the Year 1908, and the Form of Mental Disorder of the Inmates on 31st December, 1908.

FORM OF MENTAL DISORDER.	Admitted.			Recoveries.			Deaths			Remaining in Asylum.		
	Form of Mental Disorder, 31st December, 1908.			Form of Mental Disorder, 31st December, 1908.			Form of Mental Disorder, 31st December, 1908.			Form of Mental Disorder, 31st December, 1908.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital or Infantile Deficiency with Epilepsy	...	...	...	...	...	...	...	...	...	2	1	3
Do. do. without Epilepsy	4	...	4	...	...	...	...	...	...	8	2	10
Epilepsy acquired	1	...	1	...	...	...	...	...	...	4	1	5
General Paralysis of the Insane	1	...	1	...	...	...	...	...	...	...	...	...
Mania, Acute	100	24	124	38	3	41	23	14	37	26	11	37
Do. Acute Delirious	...	...	...	...	...	...	...	...	...	...	...	...
Do. Chronic	1	...	1	...	...	...	...	...	...	24	6	30
Do. Recurrent	7	2	9	4	2	6	1	...	1	6	...	6
Do. A Potu	2	...	2	1	...	1	...	...	...	...	...	...
Do. Puerperal	...	...	...	...	...	...	...	...	...	...	...	...
Do. Senile	1	...	1	...	...	...	...	...	...	...	...	...
Melancholia, Acute	21	...	21	8	...	8	1	1	2	4	1	5
Do. Chronic	...	...	...	...	...	...	5	1	6	4	...	10
Do. Recurrent	...	...	...	...	...	...	...	...	...	...	...	...
Do. A Potu	...	...	...	...	...	...	...	...	...	...	...	...
Do. Puerperal	...	...	...	...	...	...	...	...	...	...	...	...
Do. Senile	...	...	...	...	...	...	...	...	...	...	...	...
Delusional Insanity	12	...	12	6	1	7	...	...	...	4	1	5
Dementia, Primary	...	1	1	...	...	...	...	...	...	5	2	7
Do. Secondary	25	8	33	...	...	...	14	...	14	180	31	211
Do. Senile	...	...	...	...	...	...	...	...	...	...	...	...
Do. Organic...	...	1	1	...	1	1	...	2	2	...	...	...
Not Insane on Admission	...	1	1	...	...	...	...	...	...	...	...	...
Convalescent	...	...	...	...	...	...	...	...	...	2	1	3
TOTAL	175	37	212	57	7	64	45	20	65	279	57	336

TABLE XVII.

LUNATIC ASYLUM.

Showing Occupation of Admissions.

Occupation.	Male.	Female.	Total.	Occupation.	Male.	Female.	Total.
Actress ...	...	1	1	<i>Brought forward</i> ...	86	10	96
Barber ...	3	...	3	Pig-breeder ...	1	...	1
Beggar ...	4	1	5	Planter, Gambier ...	1	...	1
Bicycle repairer ...	2	...	2	„ Tapioca ...	4	...	4
Blacksmith ...	2	...	2	„ Sugar-cane ...	1	...	1
Boatman ...	2	...	2	„ Vegetable ...	3	...	3
Carpenter ...	3	...	3	Police Constable, European	1	...	1
Cart Driver ...	8	...	8	„ „ Native ...	1	...	1
Clerk ...	1	...	1	Potter ...	1	...	1
Cook ...	3	1	4	Prostitute ...	...	4	4
Cooly, General ...	32	...	32	Silversmith ...	1	...	1
„ Jinrikisha ...	3	...	3	Shop-keeper ...	8	...	8
Cowherd ...	1	...	1	Scholar ...	1	...	1
Dhoby ...	1	...	1	Sailor ...	2	...	2
Dresser ...	1	...	1	School Teacher ...	1	...	1
Fisherman ...	1	...	1	Share-broker ...	2	...	2
Fireman ...	1	...	1	Tailor ...	1	...	1
Gardener ...	5	...	5	Tin Miner ...	3	...	3
Grass-cutter ...	2	...	2	Undertaker ...	1	...	1
Hawker ...	7	...	7	Unknown ...	52	22	74
Housewife ...	...	7	7	Washerwoman ...	...	1	1
Mason ...	2	...	2	Weaver ...	1	...	1
Merchant ...	1	...	1	Woodcutter ...	3	...	3
Painter ...	1	...	1				
<i>Carried forward</i> ...	86	10	96	TOTAL ...	175	37	212

Maternity Hospital.

REPORT BY Dr. P. FOWLIE, *Honorary Visiting Surgeon.*

1. During the year the admissions numbered 143, number for previous 12 months 105.

2. *Nationality of patients:—*

European	...	...	...	...	37
Eurasian	...	...	...	...	9
Chinese	...	...	...	...	27
Tamils	...	...	...	...	39
Sikhs	...	...	...	...	10
Javanese	...	...	...	...	3
Jewish	...	...	...	...	9
Japanese	...	...	...	...	8
Burmese	...	...	...	...	1
Total					143

3. *Analyses of Cases:—*

Uncomplicated	...	...	...	...	114
Transverse position	...	...	...	...	1
Occipito Posterior Position	...	...	...	...	2
Breech	...	...	...	...	5
Twins	...	...	...	...	2
Tedious labour	...	...	...	...	8
Miscarriage	...	...	...	...	3
Abortion	...	...	...	...	2

4. *Children.*—Boys 64, and Girls 74, of whom 11 were still-born.

Average weights.

European	...	...	...	7 lb. 11 oz.
Native	...	...	...	6 lb. 7 oz.

5. *Mothers.*—Four died. Placenta prævia 1, Exhaustion and Septicæmia 3.

6. *Operations:—*

Induction of labour	...	...	1 case (eclampsia)
Forceps	...	...	7 „
Manual extraction of placenta	...	...	3 „
Bipolar version	...	...	1 „

The transverse case was sent to General Hospital for Cæsarean section, where she died.

7. *Pathological Cases.*—Placenta prævia 1 case, Eclampsia 1 case, Postpartum hæmorrhage 4 cases.

Postpartum Hæmorrhage occurred in 3 cases of retained placenta and in 1 tedious case from secondary inertia. Of the tedious cases all had been in labour from 4 to 6 days before admission—5 of them were forceps cases, of whom 3 died from Exhaustion and Septicæmia. The cases were infected on admission.

It is satisfactory to note that in spite of the number of cases of septic infection admitted no other case in hospital was infected from them.

8. *Staff.*—The previous sentence speaks eloquently of the competence of the staff in circumstances very far from ideal.

Mrs. MATHEWS and Mrs. PFLUG passed their qualifying examination and were granted diplomas to practise as midwives.

9. *General.*—The Hospital was finally closed on the 20th November after years of very good work considering the inadequacy of the building. It has become more popular and useful each year.

The new Hospital at Sepoy Lines was opened on 1st December.

New Beri-Beri Hospital at Pasir Panjang.

REPORT BY DR. W. G. ELLIS, *Surgeon-in-Charge.*

1. On the 31st December, 1907, there remained 113 patients, 340 were admitted during the year, making a total treated of 453.
2. Of these:—179 were discharged recovered, 91 were discharged improved at their own request, 13 were transferred to other hospitals for inter-current disease, 8 were discharged not improved to the care of their friends, 36 absconded improved and 4 not improved, 10 died, and 112 remained under treatment at the end of the year.
3. Of the 10 deaths but 4 died from Beri-beri, Dysentery being the cause in 3 cases, Diarrhœa in 2, and Septicæmia in 1.
4. Those dying from Beri-beri succumbed one two hours after admission, one two days, one three days, and one seven days after admission.
5. It is gratifying to note that the marked usefulness of this hospital continues and that the success of last year in treating these sufferers with sea bathing and massage in addition to drugs shows no signs of any falling off.
6. The good hygienic conditions under which they live and are housed must also be a factor.
7. A fourth ward with accommodation for 40 patients will shortly be at our disposal as the lunatics at present inhabiting it will be transferred to their own hospital.
8. The Matron of the Lunatic Asylum has continued to supervise the nursing and cooking in an efficient manner and my thanks are due to the whole staff for good work done.

APPENDIX B.

Penang.

REPORT BY DR. W. H. FRY, *Acting Senior Medical Officer.*

1. *Birth-rate.*—The Births in the Settlement numbered 7,455, being 3,824 males and 3,631 females, of this number, 2,942—males 1,509 and females 1,433 were registered in Penang Island alone. On an estimated population of 258,993, this shows a birth-rate of 28·78 per mille, compared with 24·10 per mille in 1907 and 23·76 per mille in 1906.
2. *Death-rate.*—The number of deaths recorded was 9,614, being 6,542 males and 3,072 females, compared with 8,135 deaths in 1907 and 9,278 in 1906. The death-rate for the year on the estimated population above given was 37·12 per mille, compared with 31·60 the previous year. The death-rate for Penang Island alone was 43·12 per mille, against 36·13 in 1907 and 41·81 in 1906.
3. *Public Health.*—The general health of the Settlement judged by the number of deaths above given was far from satisfactory; some fallacies necessarily exist in the estimated population, numbers being always difficult to compute when no accurate statistics of emigration and immigration are available, particularly this is so in the case of Penang Island where the vicinity of the mainland permits of a large number of coastal vessels continually arriving and departing; but even allowing for some discrepancies from this cause the death-rate must be regarded as extraordinarily high.
4. Among the chief causes of death in Penang Island, the undermentioned figure prominently and as the numbers for the past four years are also given, a comparison is allowed between this and former years.

Principal Causes of Deaths, Penang Island only.

Causes of Deaths.	1904.	1905.	1906.	1907.	1908.	Died in Hospital, 1908.
Phthisis	604	626	674	641	917	134
Malarial Fever	244	661	577	526	820	70
Beri-beri	307	291	282	212	534	59
Fever (not specified)	1,111	608	560	453	444	...
Dysentery	161	222	394	289	314	124
Convulsions	300	445	343	382	280	...
Tetanus (Infantile)	...	...	44	52	137	...
Diarrhœa	377	323	251	211	133	96

5. The progressive rise in the number of deaths from Phthisis is at once noticeable and I am at a loss to determine any one factor accounting for this; overcrowding and ill-ventilation of lodging and tenement houses, the bugbear of European cities, is of course present though to a somewhat less extent than in colder climates. A large number of coolies arriving in Penang are physically unfit for work. A disability often enhanced by a sea voyage and if such coolies are lodged in houses occupied by tubercular persons, or as it is possibly the case teeming with tubercle bacilli from the expectoration of previous occupants the seeds of this disease are thus laid. With a death-rate of 6·89 per mille from Phthisis alone it becomes a serious question as to whether this disease should not become a notifiable one and measures adopted for lessening a mortality that is a great menace to the health of the community. It is noticeable that 712 of these deaths from Phthisis occurred in the Municipal area of which 134 only took place in hospital.

6. *Malarial Fever*—shows a considerable rise over last year but it is probable that in former years deaths from this cause were returned under "Fever unspecified;" with the increased knowledge at our disposal deaths from unspecified fevers are yearly becoming less and are now chiefly confined to the country districts; in Municipal limits the deaths from Malaria have risen from 231 in 1906, to 307 in 1907, and to 746 in 1908.

7. A large increase is observable in deaths from Beri-beri, though in Government Institutions where parboiled rice is exclusively used the mortality from this disease has with slight annual variations been steadily decreasing for several years; in the Municipal area the deaths from Beri-beri rose from 194 in 1907 to 488 last year.

8. The death-rate among Indians has risen enormously being 71·15 per mille against 48·13 per mille last year; the chief causes of this increased death-rate are:—Phthisis, Malarial Fever, Dysentery and Debility.

9. *Infantile Mortality*.—While it is satisfactory to observe an increased birth-rate for the past three years, an excessive infantile mortality still forms one of the leading features of the death returns; 1,296 children dying under 5 years of age, of which 562 were infants under 3 months old. Tetanus, a disease increasing with succeeding years, accounted for 137 of the children's deaths (132 being within Municipal limits), against 52 deaths from this disease in 1907.

Deaths from Convulsions number 280, a diminution of 102 on the previous year; it is probable, however, that several deaths from this cause have been returned under their predisposing cause.

10. The Chart accompanying this report represents the number of deaths each week, compared with the corresponding number of deaths in 1907.

The Rainfall for each month is also shown.

11. *General Diseases*.—The number of cases of Malaria admitted to the various hospitals of the Settlements is the highest yet recorded, being 269 in advance of last year, and 194 advance on 1906.

Death Rate per Mille calculated on a mean Annual Population of
Rural Population

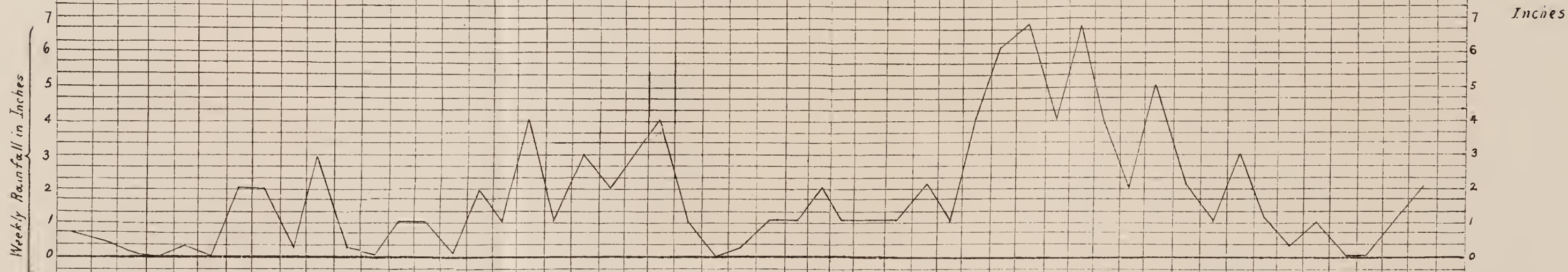
133,667
31,598

1908

Death Rate within Municipal Limits
Calculated on a Population of

101,469

January WEEK ENDING THE				February WEEK ENDING THE				March WEEK ENDING THE				April WEEK ENDING THE				May WEEK ENDING THE				June WEEK ENDING THE				July WEEK ENDING THE				August WEEK ENDING THE				September WEEK ENDING THE				October WEEK ENDING THE				November WEEK ENDING THE				December WEEK ENDING THE							
4	11	18	25	1	8	15	22	29	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26



200
190
180
170
160
150
140
130
120
110
100
90
80
70
60

1908

1907

Death rate mille
Corrected Rural Districts
Cruze Pinang Island
Corrected Municipal

24.70	29.64	27.99	21.41	31.29	15.17	19.76	31.29	29.64	24.70	31.29	44.69	31.29	37.88	34.58	34.58	29.64	34.58	37.88	26.35	26.35	33.52	32.94	42.88	44.69	32.94	33.52	33.52	31.29	34.58	44.69	33.52	16.47	34.58	33.52	24.70	10.11	41.17	36.29	36.23	31.29	29.64	31.29	36.23	33.52	44.69	52.70	34.58	34.58	33.52	19.76	26.35
34.05	34.85	41.85	33.46	34.14	34.44	32.12	36.37	40.63	26.43	38.70	40.24	39.08	36.37	40.24	34.47	40.63	34.05	46.05	36.37	45.66	44.54	42.57	45.27	53.40	44.69	42.57	45.66	44.18	37.15	37.96	40.63	37.15	37.92	37.96	41.40	35.21	42.18	42.18	44.18	41.40	33.71	47.60	47.60	43.73	48.12	53.01	46.46	42.18	46.46	41.40	38.31
32.44	35.53	43.26	34.50	38.47	40.17	34.50	36.05	41.71	28.32	38.62	35.02	40.17	32.46	40.63	32.11	43.26	31.41	46.35	36.56	47.87	43.26	44.80	42.74	54.57	52.01	50.48	44.80	46.35	37.08	37.08	41.17	41.20	37.57	38.62	44.28	38.62	36.11	40.68	43.26	42.23	38.19	48.41	47.44	43.77	47.44	50.48	44.41	42.23	44.80	45.83	34.14

Venereal Disease has increased in virulence for several years at both Hospitals and Dispensaries, the increase is progressive and will probably become greater with advancing years, very few women in proportion to the large number of prostitutes avail themselves of the free accommodation and treatment provided at the Lock Hospital. The deaths resulting from the acquisition of this disease are mostly recorded under some other headings and form no indication of the true mortality.

12. Dysentery shows an advance on the previous year whilst all respiratory diseases have increased, the admissions to Hospitals for Phthisis being an excess of 72 on last year, the majority of sufferers however from this complaint only seek Hospital treatment in the last stages of the disease.

13. The Out-door Dispensaries continue to be well attended there being a total of 10,495 persons, against 9,836 the previous year. A diminution is observable at Balik Pulau where the number in Hospital has also declined and also at Lumut. Chowrasta, Bukit Mertajam and Butterworth all show largely increased attendances. In this connection I may add that it is regrettable that Malay Dressers cannot be procured for out-station Hospitals; Malays will rarely attend and hardly ever bring members of their family however sick to a Hospital where all Dressers are alien to themselves in sympathy, language and nationality.

Quarantine Camp.

REPORT BY DR. A. H. KEUN, *Medical Officer*.

1. There were no patients in the Camp at the beginning of the year. The following patients were treated during the year:—

Chicken-pox 48, Measles 6, Small-pox 5 (with 2 deaths), Diarrhoea 1, and observation 1, making a total of 61 treated.

2. Sixteen out of 61 cases sought admission by themselves to the Camp or were brought by their relatives and friends, the remaining cases were sent in by the Municipal Health Officer and the Deputy Port Health Officer.

3. A European Small-pox Hospital was erected during the year and completed in November; two wardlets built in place of Sheds 5 and 6; the floors of Wards 4, 11, 12, 13, 14 and 15 were cemented; one of the servants' kitchens was converted into a temporary mortuary (owing to the old one being condemned); the roofs of Wards 9, 10 and 13, the Main Ward and Special Ward were re-attaped and the kadjang walls of Wards 4 and 11 were renewed.

4. I attach Tables *A* and *B* to show seasonal variations of the infectious diseases and the incidence amongst the different nationalities.

5. The Camp was unoccupied for 103 days during the year.

6. Sixty-one admissions took place during the year as compared with 54 for 1907. There were two deaths in 1908 and two in 1907.

TABLE A.

MONTHS.				Small-pox Admissions.	Chicken-pox Admissions.	Cholera Admissions.
January	...	...	...	...	16	...
February	...	...	...	...	8	...
March	...	...	...	2	9	...
April	...	...	...	1	3	...
May	...	...	...	...	...	...
June	...	...	...	...	6	...
July	...	...	...	...	2	...
August	...	...	...	2	1	...
September	...	...	...	...	...	...
October	...	...	...	...	1	...
November	...	...	...	...	2	...
December	...	...	...	...	...	...
Total ...				5	48	...

TABLE B.

NATIONALITIES.				Small-pox.	Chicken-pox.	Cholera.
Hindus	...	...	...	4	36	...
Sikh ...	...	...	...	...	1	...
Chinese	...	...	...	1	3	...
Jaffnese	...	...	...	...	1	...
Islam Klings	...	...	...	...	3	...
Goanese	...	...	...	...	1	...
Eurasians	...	...	...	...	2	...
Malays	...	...	...	...	1	...
Total ...				5	48	...

TABLE C.

Quarantine Camp, Jelutong, Penang.		1907.				1908.			
		Remained.	Admitted.	Died.	Remaining.	Remained.	Admitted.	Died.	Remaining.
Eurasians	...	...	1	...	...	...	2	...	...
Natives	...	5	53	2	...	...	59	2	...
Total	...	5	54	2	...	...	61	2	...

General Hospital.

REPORT BY Dr. E. N. GRAHAM, *Acting Senior Medical Officer.*

1. *Staff.*—Dr. D. M. FORD was transferred to the Federated Malay States in February when Dr. HENNESSY took charge till I returned from leave at the beginning of June. Dr. LIVESEY relieved Dr. NIVEN in April and he in his turn by Dr. COOPER in September. The Assistant Surgeon was taken away from the General Hospital.

2. *Nursing.*—Miss HARDING was confirmed as Head Nurse in January and has done good work during the year. Miss COLLEY was granted six months' leave in August, Miss BROWN has been Acting Sister since then. Miss HOGAN joined the staff

in June to be trained as nurse but resigned four months later. Nurse Probationers MILES and CHRISTIANSEN passed the final examination in November.

3. In December, Dresser EDWARDS replaced Dresser DESILVA at the General Hospital and Dresser GASPER was made Steward.

4. *Buildings*.—Early in the year the wall between the Lock and the General Wards was pulled down. The Native Wards have had new floors and extra ventilation put in. The hospital has been re-painted.

5. *Furniture*.—A private telephone connecting the Medical Officers' and Nurses Quarters with the Native and European Wards was put.

6. *Work*.—There were 205 patients admitted to the European Wards and 1,312 to the Native as compared with 232 and 1,532 of last year's. The mortality for 1908, excluding deaths within 24 hours of admission is 6.05 per cent for Europeans and 6.6 per cent for natives.

7. The principal diseases treated were :—

Malaria 200, Dysentery 58, Phthisis 22, Beri-beri 39.

8. *Beri-beri*.—All the patients in the hospital were fed on parboiled rice; whereas no fresh cases developed in hospital yet few of the 39 treated were cured. The treatment of this disease is still unsatisfactory and cases do well or get worse without any apparent reason, neither drug nor diet seems to have any effect and even symptoms can rarely be relieved.

9. *Operations*.—Ninety-eight operations were performed during the year, of these 82 were since June.

Return of work done during 1908, General Hospital, Penang :—

	1907.					1908.				
	Remained.	Admitted.	Total.	Died.	Remaining.	Remained.	Admitted.	Total.	Died.	Remaining.
Europeans ...	5	232	237	13	10	10	205	215	14	1
Natives ...	53	1,532	1,585	85	51	51	1,312	1,363	114	37
Total ...	58	1,764	1,822	98	61	61	1,517	1,578	128	38

Table showing the Admissions, Daily Average and Percentage of Deaths, in the General Hospital, Penang, for the Year 1908.

	Remained, 31st December, 1907.	Admitted 1908.	Total Treated.	Discharged.	Transferred.	Absconded.	Died.	Remained, 31st December, 1908.	Average Daily Sick.	Percentage of Deaths to Total Treated.	Percentage of deaths to total treated excluding deaths within 24 Hours.	Died in 24 Hours.
Europeans ...	10	205	215	200	...	...	14	1	9.63	6.51	6.05	1
Natives ...	43	986	1,029	851	28	10	111	30	39.48	10.78	6.6	22
Native Police ...	8	326	334	322	...	1	3	7	7.16	0.89	6.6	1
Total ...	61	1,517	1,578	1,373	28	11	128	38	56.27			24

Return of Opium Smokers called for by Governor 862/07 for 1908
for the Year 1908.

Hospital.	Total admissions.	Opium Smokers or cases.	Morphia injectors or Morphia habit.	Whether illness is attributable to or enhanced by the opium or morphia habit.
General Hospital ...	1,517 427 Chinese admissions.	70	8	

Prison Hospital.

REPORT BY Dr. W. H. FRY, *Acting Senior Medical Officer.*

1. Three thousand nine hundred and twenty-six prisoners were admitted during the year, the daily average prison population being 295·87.
2. *General Statistics.*—

—	A. Arrived in Gaol.	B. Average daily No. in Gaol.	C. Sent to Hospital.	D. Ratio C. to A.	E. Died.	F. Ratio E. to B.
Non-vagrants ...	3,666	253·26	280	7·63	10	3·95
Vagrants ...	260	42·61	70	26·92	11	26·19

3. Three hundred and fifty prisoners were admitted to Hospital, (exclusive of those detained for trivial complaints for 48 hours) 70 being vagrants. The Hospital sick-rate was 19·02, and the Prison sick-rate was 6·53.
4. The following Table A shows the proportion of the admissions to Hospital to the arrivals in Gaol for the past ten years:—

TABLE A.

YEARS.	Non-VAGRANTS.			VAGRANTS.		
	A. Arrived in Prison.	B. Admitted to Hospital.	C. Percentage of B to A.	D. Arrived in Prison.	E. Admitted to Hospital.	F. Percentage D. to E.
1899	4,610	139	3·01	...	...	...
1900	2,702	53	1·95	...	...	...
1901	2,837	98	3·45	...	...	...
1902	3,534	103	2·91	...	...	...
1903	3,674	96	2·61	...	...	...
1904	4,705	155	3·29	...	...	...
1905	4,847	337	6·95	...	...	...
1906	3,841	356	9·26	52	18	34·61
1907	3,280	245	7·50	143	48	33·57
1908	3,926	280	7·13	260	70	23·07

The average daily sick during the year was, non-vagrants 12·13, vagrants 6·89.

5. *Beri-beri*.—There were no admissions to Prison for this disease, nor did any cases occur in the Prison during the year. All the inmates were fed on parboiled rice.

6. The following Table *B* gives the chief diseases treated with deaths from each:—

TABLE *B*.

Diseases.				Treated.	Deaths.	Percentage.
Diarrhœa	...	...	...	71	3	4·22
Dysentery	...	...	...	52	6	11·50
Morphia Habit	...	...	...	34	2	5·88
Venereal Diseases not including Rheumatism	...	...	...	16	...	...

Of the 71 treated for Diarrhœa, 29 acquired the disease in the Prison and in 42 the disease was brought in from outside; of the 52 cases for Dysentery 36 occurred among prison inmates and 16 among prisoners admitted with this disease. Boiled water was served out to all prisoners from 1st January to 17th February and again from 21st July to the end of the year. During the interval a new boiler was being fitted.

7. The 21 deaths abovementioned were due to the following diseases:—

Vagrants.—Dysentery 5, Diarrhœa 3, Phthisis 1, Anæmia 1, Ankylostomiasis 1.

Non-vagrants.—Dysentery 1, Morphia Habit 2, Cirrhosis of Liver 1, Phthisis 3, Cellulitis 1, Rupture of Spleen 1, Cancer of Stomach 1.

8. Forty-eight vagrants and 79 non-vagrants were admitted direct to Hospital on admission to Prison being too ill for even the lightest labour; all but one (a non-vagrant) being sentenced to rigorous imprisonment; three of these vagrants and four of these non-vagrants died within seven days of their admission.

9. Twenty prisoners showed signs of present and past venereal diseases; 269 bore traces of morphia injections, equivalent to a percentage of 6·85 to the total admissions to Prison, and 62 were confirmed opium smokers or eaters, the percentage to total admissions being 1·57.

10. Seven hundred and fourteen prisoners were vaccinated during the year, the percentage of successful cases was 56·9 as against 540 last year with a percentage of 95·7 successful cases.

Return of Work done during the Year 1908.

Hospital.	Nation.	1907.					1908.					Remarks.
		Remained.	Admitted.	Total.	Died.	Remaining.	Remained.	Admitted.	Total.	Died.	Remaining.	
Prison ...	Europeans.	...	...	...	...	...	...	...	...	...	...
	Natives ...	20	293	313	18	8	8	350	358	21	23	

*Return of Venereal Diseases in the Prison Hospital, Penang,
for the Year 1908.*

DISEASES.	ADMISSIONS.		DEATHS.		REMARKS.
	Male.	Female.	Male.	Female.	
Primary Syphilis ...	1	} Prostitutes Nil.
Secondary Syphilis ...	6	...	...	...
Tertiary Syphilis ...	...	...	...	...

*Annual Return of Opium Smokers, etc., in the Criminal Prison Hospital, Penang,
for the Year 1908.*

(a)	Total admissions	...	...	350
(b)	{ Opium Smokers	...	...	62
	{ Opium Eaters	...	...	...
	{ Morphia Injectors	...	...	101
	Total	...		163
(c)	{ Illness attributable to opium habit...			34
	{ Enhanced by the opium habit	...		...

District Hospital.

REPORT BY DR. A. H. KEUN, *Medical Officer.*

1. *Buildings.*—During the year the four new Dressers' Quarters which were started in 1907 were completed and occupied.

The building of the new Eye Ward was started in the latter part of the year. The old European Small-pox Hospital was given up on the completion of the new one at Jelutong and all furniture, etc., were transferred in November.

2. *Staff.*—This year again saw great changes in the Hospital staff. I remained in charge during the whole year. Among the Assistant Surgeons Mr. SCRIVEN was the only one who continued throughout the year.

Mr. F. CLARKE was Assistant Surgeon up to 23rd March when he went to relieve Mr. RODRIGUES at the General Hospital.

Mr. HOLLOWAY was likewise attached to this Hospital till 1st April when he went on sick leave and ultimately resigned from the service.

Mr. A. K. MUKERJI was appointed Assistant Surgeon on 7th March, 1908, and resigned on 2nd May, 1908, a portion of his time was spent as a patient in the General Hospital.

Mr. H. P. MUKERJIE was appointed Assistant Surgeon at the District Hospital on 30th April.

Mr. CANAGASABY, an Apothecary with a Ceylon training was sent from Singapore on 15th July to act as Assistant Surgeon and he resigned on 19th August. On 24th September, 1908, Mr. N. G. SARDESAI was appointed while Mr. H. P. MUKERJIE resigned on 31st December.

Similarly great changes took place among the Dressers. Hence with such frequent changes in the working staff there was necessary interference with the most efficient working of the Hospital. The work done generally was good while Mr. TAI LEE'S work was as usual carefully and excellently done.

3. *Work Done.*—On 1st January, 1908, there were 393 cases under treatment in the Hospital. During the year there were 4,433 admissions (males 4,138, including 64 in the European ward; females 295) making a total treated of 4,826. The average daily numbers were, males 360·26 and females 17·55. There were 736 deaths (males 685 including 1 European male and 3 European females and Native females 48). The percentage of deaths to total treated being thus 15·25 as compared with 15·36 of the previous year, 17·49 in 1906, of these 50 patients died within 48 hours. There was a steady increase in the Phthisis admissions, thus there were 215 cases treated with 116 deaths giving a percentage of 53·95; these figures are excessive as they do not give an accurate idea of the prevalence of Tuberculosis amongst natives, since cases only seek admission at advanced stages of the disease and when treatment outside prove of no avail in relieving symptoms. Post-mortem examinations on patients dying from other diseases and those dying immediately on admission too often show Tubercular Lesions of Lungs and Tuberculosis which have shown no or very indefinite symptoms during life.

4. Venereal Diseases again accounted for a good many admissions, namely:—For 691 cases; Malarial Fevers have this year shown a distinct increase to previous years; thus there were 495 cases treated with 52 deaths (mortality 10·54 per cent). In 1907, 298 cases with 31 deaths (mortality 10·4 per cent). In 1906, 366 cases with 37 deaths (10·1 per cent). In 1905, 178 cases with 29 deaths (16·29 per cent). In every case the diagnosis was made on the results of the blood examination. Every patient admitted with fever or who complained of fever or rigors in the course of treatment for other diseases had his blood at once examined. In most cases Malaria was discovered as the sinking factor, though the original diagnosis of beri-beri and etc., was adhered to. The neighbourhood of Sepoy Lines more especially round about Dato Kramat, is especially malarial judging from the number of admissions from this District. This is not surprising when one considers the very low-lying and swampy nature of the lands. Beri-beri accounted for 260 admissions with 45 deaths (17·30 per cent), as contrasted with 164 admissions and 33 deaths, 20·1 per cent, in 1907; most of these cases have drifted in from the Federated Malay States though undoubtedly a good many developed the disease in Penang; as in recent years parboiled rice was continued in use. There were 230 cases of Dysentery treated with 98 deaths giving a percentage of 42·6 in 1907, 180 cases were treated with 98 deaths, 52·2 per cent.

5. Diarrhœa (Acute and Chronic) accounted for 239 admissions with 86 deaths or 35·98 per cent as against 96 treated with 40 deaths, 41·6 per cent in 1907.

Tables A, B and C show the admissions and deaths for the principal diseases and special return for Beri-beri and Venereal Diseases.

TABLE A.

Table showing Admissions and Deaths from the Principal Diseases for the past Four Years at the District Hospital, Penang.

DISEASES.	1905.			1906.			1907.			1908.		
	Cases Treated.	Deaths.	Percentage.	Cases Treated.	Deaths.	Percentage.	Cases Treated.	Deaths.	Percentage.	Cases Treated.	Deaths.	Percentage.
Malarial Fevers	178	29	16·29	366	37	10·10	298	31	10·4	495	52	10·54
Beri-beri	357	92	25·77	231	44	19·04	164	33	20·1	260	45	17·30
Dysentery	157	78	49·68	358	162	45·25	180	98	52·2	230	98	42·60
Diarrhoea	190	106	55·78	73	28	38·35	96	40	41·6	239	86	35·98
Phthisis	175	116	66·28	213	138	64·78	172	102	59·5	215	116	53·95
Anæmia	133	47	35·33	167	57	34·13	178	37	20·8	356	102	28·65
Venereal Diseases	631	45	7·13	621	22	3·54	688	18	2·76	691	26	3·76
Debility	127	41	32·28	76	16	21·05	89	33	37·0	...	...	...
TOTAL	1,948	554	28·43	2,105	504	23·94	1,865	392	21·0	2,486	525	21·12

TABLE B.

Table showing the Admissions and Deaths at the District Hospital, Penang, for Beri-beri for the Year 1908.

NATIONALITY.	January.		February.		March.		April.		May.		June.		July.		August.		Septem-ber.		October.		Novem-ber.		Decem-ber.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Chinese	16	4	13	1	28	2	18	3	19	6	15	7	27	3	10	3	10	1	25	4	23	4	21	6	225	44
Klings, Etc.	1	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	3	1
TOTAL	17	4	13	1	29	2	18	3	19	6	15	7	28	4	10	3	10	1	25	4	23	4	21	6	228	45
Rainfall	2.40		3.72		3.81		8.93		15.53		10.42		7.06		14.66		25.54		10.17		4.23		4.79		111.26	

TABLE C.

Return of Venereal Diseases admitted to the District Hospital, Penang, for the Year 1908.

DISEASES.	ADMISSIONS.		DEATHS.		REMARKS.
	Males.	Females.	Males.	Females.	
Primary Syphilis ...	8	2	Prostitutes 18.
Secondary Do. ...	413	43	21	4	
Tertiary Do. ...	...	...	...	...
Gonorrhœa ...	37	8	...	...
Do. Ophthalmia ...	5	...	...	...
Do. Rheumatism (arthritis) ...	7	...	...	...
Chancroid or soft sore ...	34	...	1	...	
Bubo ...	54	

Return of Work done during the Year 1908.

Hospital.	Nation.	1907.					1908.				
		Remained.	Admitted.	Total.	Died.	Remaining.	Remained.	Admitted.	Total.	Died.	Remaining.
District ... {	Europeans ...	1	43	44	5	2	2	64	66	4	3
	Natives ...	359	3,682	4,041	622	391	391	4,369	4,760	732	397
	Total ...	360	3,725	4,085	627	393	393	4,433	4,826	736	400

Annual Return of Opium Smokers, Opium Eaters, etc., in the District Hospital, Penang, for the Year 1908.

(a)	Total admissions	...	...	...	...	4,433
(b)	{ Opium smokers	...	...	...	...	325
	{ Opium eaters	...	...	...	...
	{ Morphia injector or	...	...	...	...	31
	{ Morphia habit.	...	...	...	...
(c)	{ Illness attributable	...	...	...	...	13
	{ to Opium or Morphia habit	...	...	...	...
	{ Enhanced by the Opium habit, etc.	...	...	...	...

Eye Ward, District Hospital, Penang.

REPORT BY DR. J. KIRK, *Honorary Visiting Ophthalmic Surgeon.*

There were 85 cases admitted into the Eye Ward for treatment during the year.

An analysis of the cases treated is as follows:—

					Cases.
Gonorrhœal Ophthalmia ...	...	...	...	...	6
Catarrhal Conjunctivitis ...	...	...	...	...	9
Trachoma ...	...	...	...	...	11
Interstitial Keratitis ...	...	...	...	...	4
Corneal Ulcer ...	...	...	...	...	18
Corneal Opacity ...	...	...	...	...	4
Staphyloma ...	...	...	...	...	8
Iritis ...	...	...	...	...	8
Optic Atrophy ...	...	...	...	...	2
Cataract ...	...	...	...	...	5
Panophthalmitis ...	...	...	...	...	2
Amaurosis ...	...	...	...	...	8
Total ...					85

Operations of the following nature were performed:—

					Cases.
Pterygium ...	...	...	...	...	1
Iridectomy ...	...	...	...	...	1
Cataract Extraction ...	...	...	...	...	3
Jaesche Arlt Operation for Entropion ...	...	...	...	...	2
Enucleation of Eye-ball ...	...	...	...	...	2
Total ...					9

I was absent on leave during the greater part of the year and the ward was under the charge of the Resident Medical Officer, Dr. KEUN.

The new buildings to accommodate this department were completed towards the end of the year.

They include besides very satisfactory ward accommodation, an operating room, a dark room, and an Out-patient department.

The necessary equipment has been ordered from England and on its arrival the department will be properly organized to cope with the large amount of serious eye disease which exists among the lower classes of the native community. It is only to be hoped that they will take full advantage of the treatment offered them, but measures will have to be taken to advertise among this class the existence of this Hospital for the treatment of eye diseases.

European Small-Pox Hospital.

REPORT BY DR. A. H. KEUN, *Medical Officer.*

1. This Hospital was occupied for 60 days during this year.

2. Two patients were under treatment at different times; one a case of Small-pox in a cook belonging to the s. s. *Ajax*, which had come from Mecca with pilgrims. The type of disease was very virulent and there were no vaccination marks on his person. He was discharged cured in 49 days. The second case was a Second Engineer of the s. s. *Nam Sang* from Calcutta who was sent in as a case of Cholera. On admission all urgent symptoms had passed away, while his sole

complaints were sickness, excessive thirst and extreme exhaustion. He was discharged in 11 days. Microscopic examination of his stools gave negative results.

In 1907 there was only one admission and one death.

3. Both these cases were treated in the old Small-pox Hospital in the District Hospital grounds. In November, the new European Small-pox Hospital in Jelutong was completed and the removal was effected of the furniture and other property from the old building.

No cases addicted to morphia or opium habits were admitted.

Balik Pulau Hospital.

REPORT BY DR. E. N. GRAHAM, *Acting Senior Medical Officer.*

1. *Buildings and Grounds.*—The following minor works were executed during the year:—Re-atapping covered ways attached to Wards Nos. 1 and 2. Other petty repairs were attended to. The grounds were well kept throughout the year.

2. *Staff.*—Assistant Surgeon C. J. BATEMAN was in charge throughout the year with Dresser KUNG KOW SYE.

3. *Work done.*—During the year 207 patients were admitted, this with 22 remaining from the previous year brings the total treated to 229 or 60 less than the previous year. The daily average sick was 30·18, *i.e.*, 3·94 more than the year before,

The principal diseases with deaths, if any, in brackets, were as follows:—

Ulcers 45 (3), Malarial Fever 35 (1), Syphilis, Secondary, 21 (3), Anæmia 14 (5). Beri-beri 12 (4), Dysentery 8 (5), Phthisis 7 (5). Most of the ulcers were of a chronic nature and primarily due to traumatism occurring in a debilitated subject.

4. *Health.*—Good, no epidemic outbreaks.

Return of Venereal Diseases.

Number of admissions	...	...	...	207
„ of cases of venereal disease	...	...	...	6
„ of prostitutes	...	...	...	Nil.

Return showing work done during 1907 and 1908.

	1907.					1908.				
	Remained.	Admitted.	Total.	Died.	Remaining.	Remained.	Admitted.	Total.	Died.	Remaining.
Europeans	...	1	...	...	...	...	...	...	...	...
Natives	31	257	288	19	22	22	207	229	42	27

Lumut Hospital, Dindings.

REPORT BY DR. W. H. FRY, *Acting Senior Medical Officer.*

1. *Buildings.*—A new bath room and latrine were built and completed in November, 1908.

2. *Work done.*—Three hundred and fifty-three cases were admitted during the year, this with the 17 remaining from the previous year gives a total of 370 cases treated, being 107 less than the previous year. The principal diseases treated were in order of frequency, Malarial Fever 175, Diseases of the Skin 65, Injuries 29, Digestive System 19, Venereal Disease 12, Respiratory System 8, Connective Tissue 8,

Generative System 3, Nervous System 2, Urinary System 2, Disease of the Nose 1, Disease of the Eye 1, Circulatory System 1 and Surgical Operation 1. The average daily sick was 12·7.

3. *Mortality*.—Twenty-six deaths occurred during the year, of these 6 died within 48 hours of admission. The causes of deaths in the fatal cases were:—Dysentery 5, Chronic Malaria 4, Anæmia 3, Diarrhœa 3, Malarial Fever 2, Beri-beri 2, Valvular Disease Mitral 1, Broncho Pneumonia 1, Phthisis 1, Pleurisy 1, Cirrhosis of the Liver 1, Dropsy 1, and Bright's Disease 1. The percentage of deaths to total treated was 7.

The admissions were as under :—

			<i>Admissions.</i>	<i>Deaths.</i>
			—	—
From the Dindings	...	...	148	13
From Sitiawan, Lower Perak		...	205	13
			—	—
Total	...		353	26
			—	—

4. *Health*.—The health of the Settlement has been satisfactory. No case of infectious disease was reported. The health of the Malay Police Contingent was good. There were 10 Police admissions to the Hospital and 73 were treated as out-patients. No death occurred. The general health of the population in Lumut was good.

Leper Asylum, Pulau Jerejak.

REPORT BY DR. W. H. FRY, *Acting Senior Medical Officer*.

1. The number of Lepers treated during the year was 506, compared with 488 in 1907 and 496 in 1906.

2. Statement for 1908 is as under :—

Remaining on 31st December, 1907	...		{ Colonial 248 Perak 118 }	356
Admitted during 1908	...	...	{ Colonial 98 Perak 52 }	150
			Total treated	...
				506
Discharged	...	...	{ Colonial 3 }	4
Transferred	...	...	{ Colonial 1 }	
Absconded	...	...	{ Colonial 17 Perak 8 }	25
Died	...	...	{ Colonial 69 Perak 38 }	107
Remained	...	...	{ Colonial 256 Perak 114 }	370
				506

3. The average daily number of sick was 383·73.

4. The single transfer was that of a Malay to Pulau Pangkor Laut, Malay Leper Settlement.

5. The various nationalities of those admitted are shown in Table A.

6. A return of admissions of opium smokers is shown in Table B.

With regard to this return it is necessary to point out that nearly every Chinese leper states that he is an opium consumer on admission, while of the remainder the

greater part acquire the habit subsequent to admission ; very little effort being made to check them in the use of the drug ; it is in fact one of the few solaces enjoyed by the unfortunate inmates of the Asylum.

List of Nationalities, Leper Asylum, Pulau Jerejak, for the Year 1908.

Nationality.	Remained.	Admitted.	Total.	Discharged.	Transferred.	Absconded.	Died.	Remaining.	Remarks.
Eurasian ...	1	1	2	...	...	...	1	1	
Chinese ...	318	128	446	2*	...	22	97	325	*To China.
Malays ...	6	1	7	...	1†	...	1	5	†Pangkor Laut.
Tamils ...	30	19	49	1‡	...	3	8	37	‡To India.
Ghurka ...	1	...	1	...	...	...	...	1	
Arab ...	...	1	1	...	...	...	...	1	
Total ...	356	150	506	3	1	25	107	370	

TABLE B.

Annual Return of Admissions of Opium Smokers, Non-Opium Smokers and Morphia Injectors at the Leper Asylum, Pulau Jerejak, for the Year 1908.

Hospital.	Total Admissions.	Opium Smokers.	Morphia Injectors.	Whether the illness is attributable to or enhanced by the Opium or Morphia habit.	REMARKS.
Leper Asylum, Pulau Jerejak.	150	126	1	Not attributable to.	126 Chinese Opium Smokers. 1 " Morphia Injectors. 20 Tamils 1 Eurasian 1 Arab 1 Chinese boy

Non-Opium Smokers.

TABLE C.

Annual Return of Admissions and Deaths of the Leper Asylum, Pulau Jerejak, for the Year 1908.

	January.		February.		March.		April.		May.		June.		July.		August.		Septem-ber.		October.		Novem-ber.		Decem-ber.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Leprosy N.	2	5	8	4	15	3	5	4	3	5	5	7	14	3	2	5	3	5	4	5	1	7	...	4	62	57
" A.	1	3	15	2	12	2	2	1	1	2	6	4	20	2	4	6	5	3	2	6	1	5	1	5	70	41
" M.	1	1	5	1	6	1	2	...	1	2	1	1	...	...	...	...	1	1	...	1	1	...	1	1	18	9
Total	4	9	28	7	33	6	9	5	5	9	12	12	34	5	6	11	8	9	6	12	3	12	2	10	150	107

Female Leper Ward, Jelutong.

REPORT BY DR. A. H. KEUN, *Medical Officer-in-charge.*

1. There were 13 patients remaining at the end of 1907 :—Eurasian 1, Chinese 10, Hindus 2.
2. Four cases were admitted during the year :—Chinese 3, Hindu 1, making a total of 17 treated.
3. There were 2 deaths :—1 Hindu and 1 Chinese. All from Cardiac Failure; the percentage of deaths to total treated was 11·76 and the average daily sick 12·89.
4. There were no additions or alterations during the year.

	1907.				1908.				
	Remained.	Admitted.	Died.	Remaining.	Remained.	Admitted.	Died.	Remaining.	
Eurasian ...	1	1	1	1	1 Native admitted from Perak, Federated Malay States.
Naitve ...	10	5	3	12	12	4	2	14	
Total ...	11	5	3	13	13	4	2	15	

Return of Opium Smokers.

Total admissions	...	...	...	...	4
Opium smokers	...	...	...	...	...
Opium eaters	...	...	...	...	2
Morphia injectors	...	...	...	...	...
Illness attributable to the Opium Habit	...	...	...	...	...
Enhanced by the Opium Habit	...	...	...	...	...

APPENDIX C.

PROVINCE WELLESLEY.

REPORT BY DR. C. F. NICHOLAS, *Acting Medical Officer.*

1. The general health of the Province during 1908 has been about average; there was an outbreak of Cholera in the Northern District during April and May.
2. The registered births numbered 4,328 with deaths 3,627; the figures for 1907 were 3,747 and 3,109 respectively.
3. Two thousand eight hundred and sixty-seven patients were admitted to the Government Hospitals with 332 deaths as compared with 2,192 admissions and 234 deaths in 1907.
4. On 14th April, Cholera broke out in Permatang Bindhari Village in the extreme North and before the epidemic ceased on 14th May, 64 cases had occurred with 60 deaths.

The disease spread in both directions along the banks of the Muda River extending from Kuala Muda to Penang Dungal, a distance of about 13 miles.

The high death-rate was no doubt due to cases hardly even being reported until dead or dying and owing to the large area included, house-to-house inspections were not always possible.

Infection was in every instance traced to the people drinking the river water from the Kedah side where cholera had been raging for some time.

Fresh water was supplied by boats from Penang and by carts from various parts of the Province, in many cases, with great difficulty, owing to the isolated situations of the kampongs.

One case of Cholera occurred at Nibong Tebal, source unknown.

5. The water supply of the Southern District is not yet satisfactory. An experimental filter-bed is to be erected at Sungai Bakap Hospital and should this prove a success, it is hoped that all the water from Bukit Panchor will be similarly treated.

6. I remained in charge of the Province throughout the year. Mr. NICKELSEN was stationed at Butterworth, Mr. WHEATLEY at Bukit Mertajam and Mr. DUTTA at Sungai Bakap.

District Hospital, Butterworth.

1. A new Female Ward containing 10 beds was built and is now in use.

2. The following figures represent the work done:—

Remaining from 1907	...	...	...	...	63
Admitted 1908	...	...	...	...	835
Discharged	...	...	...	...	709
Transferred	...	...	...	...	4
Absconded	...	...	...	...	15
Died	...	...	...	...	118
Percentage of deaths to total treated	...	...	...	...	13.14
Percentage of deaths to total treated excluding those dying within 48 hours	...	...	...	...	10.55
Average daily number of sick	...	...	...	...	62.63

3. Principal diseases treated were:—

Dysentery 53, Malarial Fever 49, Rheumatism 27, Venereal Diseases 94, Anæmia 26, Heart Disease 27, Phthisis 20, Diarrhœa 34, Abscess 28, Ulcers 115, Ankylos-tomiasis 25, Injuries 74.

4. *Operations*.—Fourteen operations in all were performed during the year.

5. Police cases 142.

District Hospital, Bukit Mertajam.

1. The new Ward containing 49 beds was completed in April.

The old office was pulled down and a new one erected in October.

A new Meteorological shed was built in November.

Ward II has been refloored and painted.

The other buildings have been maintained in order.

2. *Work done*:—

Remaining from 1907	...	...	...	...	10
Admissions, 1908	...	...	...	...	916
Discharged	...	...	...	...	647
Absconded	...	...	...	...	2
Transferred	...	...	...	...	112
Died	...	...	...	...	102
Remaining end of 1908	...	...	...	...	63

The work at this hospital shows a decided increase amongst both in-patients and out-patients.

3. Percentage of deaths to total treated	...	...	...	11'01
Percentage of deaths to total treated excluding those dying within 48 hours of admission	...	...	...	8'03

4. *Principal diseases treated:—*

Venereal Diseases	...	...	...	149
Malarial Fever	...	...	...	124
Diarrhoea	...	...	...	64
Beri-beri	...	...	...	54
Pulmonary Tuberculosis	...	...	...	44
Dysentery	...	...	...	36
Injuries	...	...	...	47
Ankylostomiasis	...	...	...	26
Ulcers	...	...	...	147

District Hospital, Sungai Bakap.

1. The grounds and buildings were maintained in order. A new drain was constructed in October.

2. *Work done:—*

Remaining from 1907	...	...	...	24
Admitted 1908	...	...	...	1,116
Discharged	...	...	...	987
Transferred	...	...	...	Nil.
Absconded	...	...	...	4
Died	...	...	...	112
Remaining end of 1908	...	...	...	37
Percentage of deaths to total treated	...	...	...	9'82
Percentage of deaths to total treated excluding those dying within 48 hours of admission	...	...	...	8'13
Average daily number of sick	...	...	...	45'53

3. *Chief diseases treated were:—*

Dysentery 100, Syphilis 122, Malarial Fever 65, Anæmia 53, Beri-beri 21, Rheumatism 22, Diarrhoea 47, Pulmonary Tuberculosis 43, Ankylostomiasis 34, Ulcers 109.

Estate Hospitals.

1. *Prye Estate Hospital.*—Assistant Surgeon Mr. M. V. NATASEN took charge of the Hospital on 7th November, 1908.

(a) Admissions	...	...	...	1,266
(b) Transferred to Butterworth	...	...	...	167
(c) Deaths among (a)	...	...	...	3

Principal diseases treated were:—

Ulcers	...	...	...	805
Bowel disorders	...	...	...	190
Venereal Diseases	...	...	...	82
Fever	...	...	...	67

2. *Malakoff Estate Hospital:—*

(a) Admissions	...	...	...	542
(b) Transferred to Butterworth	...	...	...	55
(c) Deaths among (a)	...	...	...	4

Principal diseases treated were :—

Ulcers	...	...	...	...	252
Bowel disorders	...	...	...	...	46
Venereal Diseases	...	...	...	...	67
Fever	...	...	...	...	83
Dysentery	...	...	...	...	36

3. *Batu Kawan Estate Hospital :—*

(a) Admissions	...	...	...	1,271
(b) Transferred to Sungai Bakap...	...	...	...	69
(c) Deaths among (a)	...	...	...	6

Chief diseases treated :—

Fever 156, Ulcers 203, Bowel disorders 274, Venereal Diseases 128.

4. *Caledonia and Victoria Estate Hospitals :—*

The marked improvement shown recently in the hospital continues; the number of deaths being slightly more than half those in 1907.

The buildings and general surroundings of the hospital are being gradually improved.

Admissions to hospital	...	...	...	1,794
Deaths	...	...	...	41

Principal diseases :—

Bowel disorders 593, Fevers 177, Ulcers 286, Venereal Diseases 119, Wounds 200.

5. *Byram Estate Hospital :—*

Admissions	...	...	...	1,159
Deaths	...	...	...	18

Principal diseases :—

Bowel disorders 547, Fevers 136, Venereal Diseases 109, Ulcers 90, Diseases of Respiratory System 50, Wounds 30.

6. *Sungai Duri Estate Hospital :—*

(a) Total admissions	...	...	...	150
(b) Transferred to Sungai Bakap	...	...	...	62
(c) Deaths among (a)	...	...	...	2

Principal diseases treated were :—

Fevers 7, Bowel disorders 26, Injuries 23, Venereal Diseases 3.

APPENDIX D.

Malacca.

REPORT BY DR. P. H. HENNESSY, *Acting Medical Officer.*

1. The general health of the Settlement during the year 1908 has been good, though once more an increased death-rate has to be recorded. On the other hand the birth-rate and the total population both show higher figures than in 1907.

The death-rate was 47·88 per mille, compared with 38·28 per mille in 1907 and 37·12 in 1906.

The birth-rate was 46·21 per mille, compared with 42·98 in 1907 and 37·05 in 1906.

The total population in 1908 was 98,138, compared with 97,764 in 1907 and 97,387 in 1906.

The nationalities comprising this total were as follows:—

Europeans	...	...	...	...	50
Eurasians	...	...	...	...	1,507
Chinese	...	...	...	...	20,474
Malays	...	...	...	...	74,963
Indians	...	...	...	...	1,059
Others	...	...	...	...	79

The deaths numbered 4,699 (2,955 males and 1,744 females). Of this number 1,407 were under one year of age, showing a percentage of 29·94 of the total deaths, against 25 per cent in 1907 and 32 per cent in 1906.

The births numbered 4,535 (2,352 males and 2,183 females), 333 more than last year and 927 more than in 1906.

Chief causes of deaths:—

Convulsions	...	...	...	...	1,260
Fever (not specified)	...	...	...	...	1,939
Malarial Fever	...	...	...	...	170
Beri-beri	...	...	...	...	227
Phthisis	...	...	...	...	215
Dysentery and Diarrhoea	...	...	...	...	283
Child birth	...	...	...	...	72

These returns are not reliable as they are made up in the Country Districts by the Native Police; but are useful in that they prevent concealment of deaths from infectious diseases and deaths from violence.

2. *Infectious Diseases*.—One case of Small-pox was reported from Tebong and despite careful investigation the source of infection was not detected. No other cases of small-pox occurred. Cases of Chicken-pox and Parotitis were occasionally met with. An outbreak of the latter disease occurred at the Police Dépôt, but was of a very mild type.

3. *Ankylostomiasis*.—I particularly mention this disease and the danger of its introduction into this district and Peninsula. Large numbers of Indian coolies who leave the neighbouring estates for various reasons are almost all infected with this parasite. In the interval between their departure from the estates and their admission into hospital or their arrest as vagrants, an immense amount of harm is possible owing to their uncleanly habits.

4. *Beri-beri*.—Seven hundred and thirty cases were treated during the year with 55 deaths giving a mortality of 7·53 per cent; deducting 12 deaths which occurred within 24 hours of admission this leaves a mortality of 5·98 per cent.

No case of this disease occurred in any of the Government Institutions such as the Prison, the Hospitals, and the Police Dépôt. Parboiled rice was used throughout.

The occurrence of Beri-beri in women after confinement or miscarriage is far from uncommon.

5. *Municipality*.—The number of deaths within Municipal limits was 958 (598 males and 360 females). The number of births was 633 (316 males and 317 females). The infant mortality was 272 in children under one year of age, giving a percentage mortality of 42·97 to the total births.

6. *Staff*.—Dr. CROUCHER left on leave at the end of March and was succeeded by Dr. DANE, whom I relieved on the 13th October.

Assistant Surgeon DE SOUZA has successfully carried on his duties at the Durian Daun Hospital without the assistance of a second Assistant Surgeon.

Assistant Surgeon SEN was in charge of Jasin Hospital and for a time (3 months) in charge of Bukit Asahan Estate Hospital in addition to his own duties.

Dresser F. NONIS relieved Dresser HOSIE, retired, at Alor Gajah.

Assistant Surgeon PENG LOK combined the duties of Deputy Registrar of Deaths with quarantine work at the latter part of the year.

7. *Government Hospitals*.—Four thousand three hundred and forty-eight cases were treated, against 3,880 in 1907 and 3,098 in 1906. There were 418 deaths giving a percentage of 9·61, compared with 8·99 in 1907 and 7·61 in 1906.

Durian Daun Hospital.

Buildings.—The Wards, etc., were limewashed and tarred and minor repairs were carried out throughout the year. The atap roof of Ward No. 4 was tiled.

General Hospital.

European Ward:—

Remained, 1st January, 1908	...	...	...	Nil.
Admitted, 1908	...	...	...	12
Discharged	...	...	...	10
Absconded	...	...	...	Nil.
Died	...	...	...	2
Remaining, 31st December, 1908	...	...	...	Nil.
Average daily sick	...	...	...	0.45

Native Ward:—

Remained, 1st January, 1908	...	...	...	11
Admitted, 1908	...	...	...	186
Discharged	...	...	...	187
Absconded	...	...	...	1
Died	...	...	...	6
Remaining, 31st December, 1908	...	...	...	3
Average daily sick	...	...	...	5.55
Percentage of deaths to total treated	...	...	...	3.82

Chief diseases treated:—

	Cases.	Deaths.	Percentage of Deaths.
Malarial Fever	22	1	4.54
Beri-beri	20	1	5.00
Pyrexia (cause unknown)	15	Nil.	Nil.
Ulcers	30	Nil.	Nil.
Injuries	44	4	9.09
Dysentery and Diarrhœa	6	Nil.	Nil.

Pauper Hospital.

Remained, 1st January, 1908	...	...	...	208
Admitted, 1908	...	...	...	2,649
Discharged	...	...	...	2,352
Absconded	...	...	...	4
Died	...	...	...	298
Remaining, 31st December, 1908	...	...	...	203
Average daily sick	...	...	...	211.25
Percentage of deaths to total treated	...	...	...	10.43

Chief diseases:—

	Cases.	Deaths.	Percentage of Deaths.
Beri-beri	492	31	6.30
Malarial Fever	349	33	9.45
Dysentery and Diarrhœa	177	81	45.76
Ankylostomiasis	26	7	26.92
Syphilis	172	3	1.74
Ulcers	808	Nil.	Nil.
Phthisis	121	69	57.02

From October to December a microscopical examination of blood films and fæces helped considerably in accurate diagnosis.

For Malarial Fever 201 slides were examined with the following results:—Sub Tertian 78, Benign Tertian 24 and Quartan 2. This proves that the Sub Tertian variety is the commonest variety in Malacca, as it is in Singapore.

Surgical Aspect.—One hundred and nineteen operations were performed during the year. The major operations included Amputation of the knee, Cataract Extraction, Iridectomy, Laparotomy, and Supra-Pubic Cystotomy for vesical calculus.

Necropsies.—During the latter part of the year post-mortems were held on every death unless permission to do so was refused. One hundred and thirteen were held during the year and 25 of these were medico-legal.

Gaol Hospital.

The general health of the prisoners was good. There were 13 admissions into hospital for the following diseases:—Dysentery and Diarrhœa 7, Malaria 2, Phthisis 2, Pneumonia, 1, Multiple Abscess 1. The number of deaths totalled 3. Malarial Fever 1, Phthisis 1, and Pneumonia 1. The average daily number of prisoners was:—Civil 11·81, Criminal 23·39, House of Detention 2·59.

Leper Asylum.

There was no admission during the year.

District Hospitals.

Alor Gajah.

Buildings.—No alterations or additions were made during the year except the usual limewashing and cleaning.

Admissions 6. Deaths 3 (2 from Malaria, 1 from Injuries).

Jasin.

Buildings.—Beyond limewashing and minor repairs nothing was done.

Patients:—

Remained, 1st January, 1908.	...	...	...	40
Admitted, 1908	..	...	...	1,222
Discharged	...	...	...	1,060
Transferred to Durian Daun Hospital	...	...	...	8
Absconded	...	...	...	10
Died	...	...	...	106
Remaining, 31st December, 1908	...	...	...	78
Average daily sick	...	...	...	64·16
Percentage of deaths to total treated	...	...	...	8·39
Excluding cases that died within 24 hours the percentage is	...	...	...	6·89

Nationalities:—

Chinese	...	...	...	...	922
Malays	...	...	...	...	18
Javanese	...	...	...	...	18
Tamils	...	...	...	...	297
Sikhs	...	...	...	...	7
From Native States	...	...	...	...	4

Chief Diseases:—

		<i>Cases.</i>	<i>Deaths.</i>	<i>Percentage of Deaths.</i>
		—	—	—
Beri-beri	...	218	23	10·55
Dysentery and Diarrhoea	...	90	39	43·33
Malarial Fever	...	370	12	3·24
Syphilis	...	67	2	2·98
Anæmia	...	33	4	12·12
Ulcers	...	216	Nil.	Nil.

Parboiled rice was used during the year. There were 218 cases of Beri-beri under treatment with 23 deaths. The percentage of deaths to total treated was 10·55. Of the 23, 5 died within 24 hours of admission; deducting this the mortality is reduced to 8·44. No cases of Beri-beri occurred in the Hospital.

During the year the hospital was frequently overcrowded especially in the months of November and December.

Quarantine Camp.

Remained, 1st January, 1908	...	...	...	Nil.
Admitted, 1908, (small-pox)	...	...	...	1
Discharged	...	...	...	1
Remaining, 31st December, 1908	...	...	...	Nil.
Average daily sick	...	...	...	0·06

APPENDIX E.

**HOSPITALS FOR WOMEN PREVIOUSLY TREATED UNDER
"THE CONTAGIOUS DISEASES ORDINANCE."**
Singapore.

REPORT BY MR. C. V. NORRIS, *Assistant Surgeon.*

Work done:—

Remained at beginning of year	...	...	...	43
Admitted	...	...	...	172
Deaths	...	...	...	18

Of the admissions:—

89	...	...	were Japanese.
67	...	...	„ Chinese.
16	...	...	„ Indian.

The average daily sick was 40·9 and the percentage of deaths to total treated was 8·4.

Of admissions there were from—

Beri-beri	...	...	16 cases.	No deaths.
Venereal	...	...	48 „	2 „
Tuberculosis	...	...	14 „	12 „

Penang.

REPORT BY DR. E. N. GRAHAM, *Acting Senior Medical Officer.*

During the year 102 patients were admitted, nearly all for either Syphilis or Gonorrhœa; it is to be regretted that more women do not seek admission.

Nationality:—

Japanese	...	...	...	...	...	31
Chinese	...	...	...	...	...	53
Hindu	...	...	...	...	...	18
						<hr/>
Total						102
						<hr/>

Of these there were 8 deaths and nearly all those admitted suffered badly from the disease.

Province Wellesley.

REPORT BY DR. C. F. NICHOLAS, *Acting Medical Officer.*

Two prostitutes were admitted during the year to Butterworth Hospital. None were admitted to the other hospitals.

Malacca.

REPORT BY DR. P. H. HENNESSY, *Acting Medical Officer.*

Eight prostitutes; 1 Japanese, 5 Cantonese, and 2 Tamils were under treatment for Venereal Diseases.

APPENDIX F.

OUT-DOOR DISPENSARIES.

Singapore.

REPORT BY MR. J. V. PESTANA, *Assistant Surgeon.*

The number of patients who attended the dispensary was 11,095, an increase of 603 over the number for the previous year.

The dispensary was opened 299 days, the average daily attendance being 118.62.

The fees collected amounted to \$3,236.75, an increase of \$70.15.

The principal diseases treated were:—

Malaria	...	...	...	...	3,007
Venereal Diseases	...	...	...	...	1,676
Rheumatism	...	...	...	...	332
Bronchitis	...	...	...	...	608
Dyspepsia	...	...	...	...	375
Ulcers	...	...	...	...	996
Injuries	...	...	...	...	530

The nationalities of the patients were:—

Europeans	...	...	...	...	62
Eurasians	...	...	...	...	646
Chinese	...	...	...	...	4,711
Malays	...	...	...	...	803
Indians	...	...	...	...	4,349
Jews and Others	...	...	...	...	524

Penang.

REPORT BY DR. W. H. FRY, *Acting Senior Medical Officer.*

Appended is a comparative statement of the work done during the past year.

The patients treated during the year 1908 numbered 7,179 as against 6,876 for the previous year, an increase of 303.

The dispensary was open for 306 days during the year, the daily average number of visits being 46.93 as against 40.50 in 1907. The total receipts for the year amounted to \$972.15, an increase of \$105.25, compared with 1907. This amount is also the largest received in any one year for the past 10 years.

This institution continues to be well appreciated by the poorer class of natives.

The principal diseases treated were :—

Malaria 794, Rheumatism 712, Syphilis 109, Bronchitis 312, Diarrhœa 178, Dyspepsia 164, Ulcers 649, Injuries 780.

The nationalities of those treated were as follows :—

	1907.	1908.
	—	—
Europeans	104	87
Eurasians	331	147
Chinese	1,545	1,809
Malays	2,481	2,395
Natives of India	2,349	2,629
Others	66	112

Comparative Statement showing the number of patients at the Government Out-Door Dispensary, Penang, from 1899 to 1908.

	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
Number of patients attended ...	4,141	4,320	4,286	4,894	4,909	5,826	6,504	7,046	6,876	7,179
„ of visits paid ...	8,689	8,076	7,904	8,269	9,709	11,860	11,259	11,427	11,990	14,362
Patients treated free ...	995	1,014	1,214	1,700	1,500	2,026	2,624	3,353	3,095	3,396
Pauper patients ...	218	190	218	170	160	252	418	278	196	319
Paying patients ...	2,928	3,116	2,854	3,024	3,249	3,548	3,662	3,415	3,585	3,783
Average visit per diem ...	29.55	27.56	26.70	27.80	32.69	39.53	38.16	38.44	40.50	46.93
Number of days dispensary open ...	264	293	296	296	297	300	295	298	296	306
Receipts for the year ...	679.85	684.30	617.10	643.40	752.05	795.10	840.56	768.26	866.90	972.15

Balik Pulau.

During the year 282 patients presented themselves for treatment as compared with 453 of the previous year.

The following table gives statement of the work done :—

Number of patients	282
„ Government Servants	38
„ indigent patients	87
„ paying patients	157
„ males	243
„ females	39
„ visits	552
Average number of visits	1.51
Receipt for the year	\$17.10

The nationalities of those treated were :—

Europeans	...	...	...	...	...	4
Eurasians	...	...	...	...	...	2
Chinese	...	...	...	...	...	193
Malays	...	...	...	...	...	41
Indians	...	...	...	...	...	41
Others	..	...	...	...	...	1

The chief diseases were :—

Fever 81, Ulcers 54, Rheumatism 28, Bronchitis 8, Colic 5, Diarrhœa 4, Worms 3, and Ringworm 3.

Dindings.

The number of cases treated during the year was 496, against 604 in the previous year, a decrease of 106. Malarial Fever of mild type formed the bulk of those treated. The receipt for the year amounted to \$30.97 as against \$35.70 in 1907.

Province Wellesley.

The total number of patients treated was 2,538 as against 1,903 in 1907 distributed as follows :—

Butterworth	...	...	...	...	676
Bukit Mertajam	...	...	...	...	1,326
Sungai Bakap	...	...	...	...	536

Total receipts, \$271.27.

The principal diseases treated were :—

Malarial Fever	...	...	...	...	390
Rheumatic Fever	...	...	...	...	82
Anæmia	...	...	...	...	51
Bronchitis	...	...	...	...	204
Indigestion	...	...	...	...	102
Ulcers	...	...	...	...	459
Injuries	...	...	...	...	188
Venereal Diseases	...	...	...	...	170

Malacca.

The number of patients treated was 2,303, against 2,908 in 1907 and 2,480 in 1906. The receipts amounted to \$639.66 a falling off from 1907 when \$1,184.65 was taken. This falling off is possibly due to the introduction last year of a fixed scale of fees. The decrease in the number of Chinese is noticeable.

Nationalities :—

				<i>Males.</i>	<i>Females.</i>
				—	—
Europeans	...	...	...	104	37
Eurasians	...	...	...	236	207
Chinese	...	...	...	673	191
Malays	...	...	...	419	80
Indians	...	...	...	254	57
Others	...	...	...	4	41

*Chief Diseases treated :—*Beri-beri 205, Malaria 176, Pyrexia 302, Bronchitis 236, Skin Diseases 240, Minor Operations 8, Injuries 57, Dysentery and Diarrhœa 134.

Jasin.

The number of patients were 1,119, against 1,218 in 1907 and 757 in 1906. Receipts amounted to \$102.24, against \$125.60 in 1907 and \$58.35 in 1906.

Nationalities:—

				<i>Males.</i>	<i>Females.</i>
				—	—
Europeans	...	...	...	36	2
Eurasians	...	...	...	21	1
Chinese	...	...	...	523	3
Malays	...	...	...	224	52
Indians	...	...	...	241	16

*Chief Diseases:—*Malaria 321, Beri-beri 80, Syphilis 45, Skin Diseases 376, Injuries 61, Dysentery and Diarrhœa 14.

Alor Gajah.

Number of patients 485, against 711 in 1907 and 616 in 1906. Receipts \$29 against \$32.55 in 1907 and \$28.10 in 1906.

Nationalities:—

				<i>Males.</i>	<i>Females.</i>
Europeans	...	...	...	10	Nil.
Eurasians	...	...	...	17	9
Chinese	...	...	...	80	8
Malays	...	...	...	248	51
Indians	...	...	...	49	13

*Chief Diseases:—*Malarial Fever 85, Beri-beri 7, Dysentery and Diarrhœa 12, Syphilis 8, Skin Diseases 190, Injuries 26.

APPENDIX G.**VACCINATION.****Singapore.**

The number of vaccinations performed by the Public Vaccinator was 2,330, of which 1,701 were infants under one year of age. Of the total number vaccinated 1,110 were males and 1,220 were females. Of these 1,528 were within town limits and 802 in country districts.

The largest number vaccinated in any one month was 256 in the month of November, and the smallest number was 119 in January. All vaccinations were successful.

In addition to the above 1,723 vaccinations were performed by the licensed vaccinators of which 17 were failures.

Penang.

The total number of vaccinations performed by the Public Vaccinator during the year 1908 in the town and country districts was 3,369, 98.24 per cent of these operations were successful. The cost of each successful vaccination was 58 cents.

The subjoined Table shows the Number vaccinated during the past Five Years and the Number of Births registered:—

YEAR.	Vaccinations in town and country districts.	Percentage of successful cases.	Total births registered.
1904	3,280	88·38	2,493
1905	3,446	87·76	2,613
1906	3,311	90·72	2,215
1907	2,753	95·20	2,310
1908	3,369	98·24	2,942

Three hundred and five cases were reported by the various Medical Practitioners in Penang as having been successfully vaccinated by them.

Province Wellesley.

The number of cases vaccinated was 3,845, of these 2,087 were males and 1,758 were females.

Table showing Nationalities.

	Europeans.	Eurasians.	Chinese.	Malays.	Hindus.	Others.	Total.
Perfect ...	Nil.	3	531	2,516	384	14	3,448
Modified	25	89	19	...	133
Failed	47	81	30	...	158
Not seen	8	97	1	...	106
Total	3	611	2,783	434	14	3,845
Percentage of failures to total vaccinated. }	7·69	2·91	6·91	...	4·10

Percentage of Failures to Total Vaccinated.

Northern.	Central.	Southern.	For the three Districts.
2·65	3·11	8·53	4·10

Cost of each successful Case of Vaccination.

Northern.	Central.	Southern.	Remarks.
19½ cents.	34 cents.	34 cents.	...

Malacca.

The total number of vaccinations performed was 3,428, against 3,370 in 1907 and 3,688 in 1906.

	<i>No.</i>	<i>Perfect.</i>	<i>Modified.</i>	<i>Failed.</i>	<i>Not seen.</i>
	—	—	—	—	—
Town ...	536	530	6	0	0
Country ...	2,892	2,759	69	43	21

The percentage of failures was 1·25, against 1·33 in 1907 and 5 per cent in 1906. The same precaution as to the preserving of lymph was observed.

Nationalities :—

Europeans	...	...	...	...	4
Eurasians ...	...	...	...	...	24
Chinese ...	...	...	...	...	532
Malays ...	...	...	...	...	2,846
Indians ...	...	...	...	...	13
Others ...	...	...	...	...	9
Total ...					3,428

Dindings.

One hundred and forty-four children were successfully vaccinated during the year, there were 4 failures.

APPENDIX H.

Quarantine.

REPORT BY DR. G. E. BROOKE, *Port Health Officer.*

1. During the year 1,506 visits were paid to vessels on which 220,527 passengers and 82,957 crew units were examined. This is the smallest "passenger" year for four years.

2. The infected ships numbered 56 to which Small-pox contributed 24, Plague 2, and Cholera 23. There were double infections in 7 instances.

3. Fifty-two of the infected ships were disinfected by the Steam-lighter *Hygeia*. This lighter has amply justified her existence being indispensable for the quarantine work and also admirably adapted for transport work such as change of the monthly Police guard at St. John's, etc. She was laid up for repairs during the last half of July but was in good working order during the rest of the year.

4. Certificates as to the state of health, signed by the Master or Surgeon were returned (by courtesy of the Marine Department) from 3,833 in-coming vessels not in quarantine. These represented 190,587 crew and 192,026 passengers. Thus the health-pulse of 273,544 crew units and 412,553 passengers (or nearly $\frac{3}{4}$ million persons) came within the ken of the Department.

5. Ten out-going pilgrim ships with 5,712 pilgrims, were examined before departure.

6. Nine returning pilgrim ships entered, of which 8 were infected—all with Small-pox; 1 having Cholera and 2 Plague in addition. Their passenger lists comprised 4,982 pilgrims who were landed at St. John's for observation or treatment.

7. Deaths to the number of 64 occurred during the year on vessels, sampans, etc., in the harbour. These were all investigated and burial permits issued or the body sent to St. John's for burial. The causes of death were:—Malaria 19, Phthisis 12, Beri-beri 10, Cholera 6, Pneumonia 3, Marasmus 3, Morbus Cordis 4. Dysentery, Anæmia, Convulsions, Enteric Fever, Alcoholism, and Accident caused one death each.

8. No inoculations with Haffkine's Serum were performed on the crews of the two plague-infected ships. A supply of this serum is always kept in the office.

9. Six visits were paid to the Marine Department lines at Pulo Brani. A certain amount of Malaria is frequently present amongst the lascars, and occasionally Catarrhal Ophthalmia. The drainage of the main swamp and removal of the part of the native kampong have certainly improved the health conditions during the past two years. Further requisitions have been sent in for minor alterations and works. The whole swamp should, however, be filled in.

10. *Quarantine Station*.—The station was occupied continuously throughout the year, the number of passengers landed being 29,356 as against 26,408 of the previous year.

11. Of the above total, 706 passed through the hospital for various diseases, and 68 of these died, giving a mortality of 9.6 per cent. The chief infectious cases treated were:—Plague 3 with 3 deaths; Cholera 36 with 21 deaths; Small-pox 52 with 7 deaths; Malaria 241 with 7 deaths; and Beri-beri 42 with 6 deaths.

12. Dr. GIBBS who was acting for me during the early part of the year I believe tried experimental vaccination for the treatment of small-pox in one or two cases, with gratifying results which have been already reported on.

13. The European Hospital was occupied for 111 days, the cases including 6 Small-pox, 1 Diarrhœa, 1 Malaria and 1 Cholera. Only 1 death occurred—that of a male small-pox patient.

14. The average daily number of contacts was 647; and, the greatest number on any one day 3,632.

15. The distilling plant worked well. Engineer ANGUS left on the 14th August after two years' good work being replaced by Engineer W. S. TAYLOR, who, however, left after 13 days and died shortly afterwards of Dysentery. Engineer L. DA SILVA joined on the 7th September and has given satisfaction ever since.

The total water available was:—

Remaining 1st January ...	...	...	26,048 gallons.
Distilled ...	...	...	409,050 „
Provided from Singapore...	...	...	534,164 „
			<hr/>
Total ...			969,262 „
			<hr/>

Month.	Total water used.	Mean daily average supplied per head.
	<i>Gallons.</i>	<i>Gallons.</i>
January	29,152	10.08
February	57,744	5.31
March	143,588	3.69
April	124,266	3.38
May	139,764	3.61
June	66,504	11.10
July	60,100	8.05
August	63,720	6.99
September	96,048	6.33
October	31,774	13.60
November	50,500	6.40
December	28,798	7.98
	891,958	7.21

This mean daily average per passenger of 7.21 gallons is very generous when it is considered that this water is only for drinking and cooking (usual allowance one gallon) other water being provided for washing wards, bathing, etc.

16. The former rate of $2\frac{1}{2}$ cents per head per day for water, scavenging and disinfectants was altered on 1st July to 5 cents, which well covers the cost of these services.

17. Thirty-five post-mortem examinations were made at St. John's mortuary.

18. Nine thousand and sixteen vaccinations of contacts were carried out either by the Station Staff or Government Vaccinator.

19. New gardeners' quarters and new dressers' quarters were completed. A dhobie shed has also been erected to deal with the washing at St. John's—this will be a great improvement and will avoid the necessity of sending dirty linen to Singapore, which is not a good plan however carefully it may have been disinfected.

20. The Chinese community (Cantonese) have very kindly presented 320 woollen blankets for the use of their indigent country folk. This will be much appreciated.

21. Four hundred and forty-one visits were paid to St. John's by the Port Health Officer or his Deputy.

22. Gentlemen on the roster of Chinese visitors, made nine visits of inspection. Their remarks were duly recorded in the Chinese Visitors' Book.

23. There have been several changes in the subordinate staff. Generally speaking, the work has been very satisfactory. Ten new gardeners have been added to the staff making a total of 20: this complement is none too great considering the large amount of work to be done, which includes grass-cutting (83 acres), burial of the dead on the neighbouring island, helping with luggage, assistance in serving of diets, reclamation work, upkeep of paths, etc.

24. Assistant Surgeon WILLIAMS was in residence at St. John's from 1st to 30th March and from 6th May to 31st July.

Assistant Surgeon GHOSHAL did duty from 1st August to 5th September.

25. The post of Resident Medical Officer was filled by Dr. C. T. RAIKES from 26th March to 4th April.

Dr. A. R. WELLINGTON went into Residence on the 28th September and has since carried on the duties.

26. *Singapore Island*.—Infectious disease occurring in Government buildings in Singapore or in any *extra* Municipal Limits in Singapore Island are dealt with by this Department.

27. *Office*.—Bills of Health were issued to the number of 1,344.

28. Blood films from practically all cases of fever detected amongst deck passengers on arrival, are examined either at the Port Health Office or at St. John's. This has been my practice for four or five years and no spirilla have been detected. It seems probable therefore that spirillar-fever is not in any way common in the coast ports of China, although a few cases have been reported. Most of the non-infectious-disease fevers prove to be malarial. Amongst the latter, Quartan is rare; and the malignant form roughly accounts for about 50 to 60 per cent.

29. Dr. GIBBS acted as Port Health Officer until the 9th of October when I resumed duty on returning from leave.

The post of Deputy Port Health Officer was only intermittently filled throughout the year. The officers so acting were:—

Dr. S. M. LIVESEY, 15th February to 25th March.

Dr. T. C. A. CLEVERTON, 28th March to 4th April.

Dr. C. T. RAIKES, 4th to 9th April; 27th April to 4th May.

Dr. A. S. MILLARD, 19th May to 4th September.

Dr. A. R. WELLINGTON, 14th to 28th September. Since the latter date the post has not been filled and all the work has been done by the Port Health Officer and his Assistant Surgeon. The Assistant Surgeons attached to the office have been:—

Mr. N. A. WRAY, 1st January to 6th May.

Mr. K. C. SINHA, 7th May to 31st December.

30. I regret to report that at the beginning of May, the deaths occurred from Plague after a few days' illness only, of Dr. C. T. RAIKES and Assistant Surgeon N. A. WRAY. The disease was contracted whilst making a post-mortem examination on a plague case at the Quarantine Station.

The former was a young officer who had only a few months previously joined the service. Unassuming, keen, and hardworking, a career of great promise was thus prematurely cut short.

Mr. WRAY who had seen over 20 years' service with the Government had been continuously attached to my Department for over two years. During the time he served with me, he was a veritable right-hand man. However great the pressure of work and however long the hours, he did his duty thoroughly and conscientiously and willingly; and the department is the poorer for his death.

31. I attach comparative statistical tables for the last three years; and a condensed résumé on the department's work for the past seven years.

	1906.	1907.	1908.
Vessels visited	1,625	1,226	1,506
Crews examined	129,233	78,781	82,937
Passengers examined	363,788	298,545	220,527
Vessels infected—Small-pox	25	11	27
„ Plague	3	...	4
„ Cholera	8	8	24
Pilgrims, (out-going)	6,576	5,781	5,712
Disinfections by <i>Hygeia</i>	34	11	52
Bills of Health	1,674	1,318	1,344
Permits to land corpses	54	57	64
Inoculations with Haffkine's serum	113	Nil.	Nil.
St. John's occupied (No. of days)	365	365	365
Total landed	31,299	26,408	29,356
Largest day's occupation	5,709	2,996	3,632
Average daily contacts	1,022	569	647
Total sick treated	761	624	706
Maximum hospital patients on 1 day	84	56	41
Average daily sick	19.2	13.9	17.8
Number of deaths	362	63	68
Mortality	47.57%	10.03%	9.6%
Autopsies	13	28	35
Vaccinations... ..	6,963	3,157	9,016
Drinking water used for year (in gallons) ... ..	...	...	891,958
Water supplied per head per day, for year, in gallons (Mean daily averages) ... ..	...	...	7.21

Port Health Department.—Condensed Résumé of Seven Years' Work.

YEAR.	Crews and passengers examined.	Passengers landed on St. John's.	Visits to Vessels.	Bills of Health issued.	Small-pox treated.	Cholera treated.	Plague treated.	Haffkin's Inoculation on Ships.	Vaccinations on St. John's.
1902	307,900	17,668	901	1,000	5	689	...	Nil.	Nil.
1903	321,365	21,253	806	1,000	19	271	136	761	140
1904	279,297	17,852	712	1,036	46	Nil.	9	745	4,623
1905	323,431	12,109	1,279	1,220	62	2	5	223	2,586
1906	493,021	30,076	1,625	1,674	37	319	2	113	6,963
1907	377,326	25,408	1,226	1,318	37	28	Nil.	...	3,157
1908	303,484	29,356	1,506	1,344	52	36	3	...	9,016
Totals for seven years	2,405,824	153,722	8,055	8,592	258	1,345	155	1,842	26,485

QUARANTINE.

Penang.

REPORT BY DR. J. C. C. FORD, *Medical Officer.*

Harbour.—During the year, visits were paid to 1,205 vessels with 49,593 members of crew and carrying 126,526 passengers. These totals include 8 pilgrim vessels to Camaran and Jeddah with 4,759 pilgrims, inspected and cleared, under "The Pilgrim Ships' Ordinance 1897." There were 9 returning pilgrim vessels from Jeddah.

In Statement *A* will be found the number of vessels and passengers inspected in each month of the year.

In Statement *B* is shown the number of vessels arriving from ports subject to quarantine restrictions during 1908.

Cholera.—A severe epidemic of Cholera on the Kedah Coast (Western Siam) during the months of April, May and June, necessitated the inspection of all launches, junks, and tongkangs, trading to ports on that coast. The small craft were detained in quarantine and released after disinfection of water-tanks, holds, etc. No case was imported into Penang.

Vessels from Negapatam with Tamil Immigrants kept arriving, infected with Cholera, during the months of February, March, and April. This is unusual at this early period of the year. Following the statistics of former years, September and October have been found to be the period of the year when Cholera occurs on these vessels. Cholera did exist in Negapatam during October in a sporadic form but no actual infection arrived here.

Vessels from Calcutta arrived "Cholera infected" during January, February, and April.

Towards the end of the year, in the months of November and December, all vessels carrying deck passengers from Singapore arriving at Penang either directly or *viâ* ports in the Native States were inspected towards the prevention of cholera.

Small-pox.—The majority of cases of small-pox removed to the Quarantine Station were pilgrims returning to Penang from the Hedjaz. On some of these vessels the infection was severe; as many as 29 cases occurring on one vessel. In one instance a European member of the crew, who had not been vaccinated since infancy, was infected.

One case was landed from a vessel from Rangoon; one case was detected among the crew of a vessel from Singapore; the infection in this case was probably derived

from an Indian port between Madras and Negapatam. One case was removed from a Negapatam vessel.

Plague.—Two cases—Bubonic Plague—were landed from two return pilgrim vessels from Jeddah. Both cases recovered.

The following vessels arrived infected:—

With Cholera.

From Calcutta:—

S.S. "Nam Sang"	...	Cases	Nil.	Passengers	305
S.S. "Fook Sang"	...	Case	1	"	98
S.S. "Oh Sang"	...	"	1	"	40
S.S. "Kum Sang"	...	"	1	"	52
S.S. "Nam Sang"	...	"	1	"	55

From Negapatam:—

S.S. "Teesta"	...	"	Nil.	"	1,354
S.S. "Thongwa"	...	"	Nil.	"	967
S.S. "Thongwa"	...	"	1	"	1,428
S.S. "Teesta"	...	"	2	"	1,276
S.S. "Tara"	...	"	1	"	761

From Hongkong:—

S.S. "Gregory Apcar"	...	"	1	"	60
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With Small-pox.

From Jeddah:—

S.S. "Pakling"	Cases	20	Passengers	150
S.S. "Ajax"	"	11	"	43
S.S. "Anchises"	...	...	"	4	"	508
S.S. "Ping Suey"	...	...	Case	1	"	6
S.S. "Achilles"	...	...	"	1	"	168

From Rangoon:—

S.S. "Tara"	Case	1	Passengers	110
S.S. "Bharata"	"	1	"	43

From Singapore:—

S.S. "Thongwa"	Case	1	Passengers	10
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From Negapatam:—

S.S. "Thongwa"	Case	1	Passengers	77
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With Small-pox and Plague.

From Jeddah:—

S.S. "Idomeneus"	...	{ Small-pox 8 } { Plague 1 }	Passengers	24
S.S. "Prometheus"	...	{ Small-pox 3 } { Plague 1 }	"	41

Autopsies.—Post-mortem examination was made on three bodies, and nine corpses were allowed to be buried ashore after inspection.

Permits to Passengers.—Permits were granted to 2,364 passengers to land and submit themselves for inspection daily for periods not exceeding 10 days from infected ports.

Quarantine Station, Pulau Jerejak.

The station was in continuous use during the year. The number of passengers detained for observation, treatment, etc., from 307 vessels was 21,175. The maximum number in detention on a single day being 1,768. The average daily occupation was 366.

Statement C shows the monthly occupation and average of the Quarantine Station.

Diseases Treated on the Quarantine Station.

Small-pox	...	...	Cases	51	Deaths	7
Cholera	...	...	"	9	"	2
Plague	...	...	"	2	"	Nil.
Chicken-pox	...	...	"	20	"	Nil.
Measles	...	...	"	3	"	Nil.
Fever, unclassified	...	...	"	25	"	Nil.
„ Malaria	...	...	"	68	"	Nil.
„ Enteric	...	...	"	2	"	2
„ Relapsing	...	...	"	1	"	1
Dengue	...	...	"	1	"	Nil.
Pneumonia, Acute Lobar	...	...	"	3	"	1
Pulmonary Phthisis	...	...	"	1	"	1
Diarrhœa and General Debility	...	...	"	2	"	1
Gastro-enteritis	...	...	"	1	"	Nil.
Acute Jaundice	...	...	"	1	"	Nil.
Meningitis	...	...	"	2	"	2
Parotitis	...	...	"	1	"	Nil.
Abscess, Breast	...	...	"	1	"	Nil.
„ Inguinal	...	...	"	3	"	Nil.
Extravasation of Urine	...	...	"	1	"	1
Syphilis (Rash )	...	...	"	1	"	Nil.
Abortion	...	...	"	2	"	Nil.
Total cases treated...	...	...	=	201		
Percentage of deaths to total treated			=	8.9		

Relapsing Fever.—Dresser DANIEL took ill on 28th March and died on 3rd April at the General Hospital, Penang, from Relapsing Fever. Blood films taken during the pyrexial stage showed a large number of spirilla. It is difficult to fix the source of infection. All fever cases on the station have their blood examined microscopically and no case of Relapsing Fever came to notice.

Autopsies.—Five corpses were examined post-mortem.

Vaccinations.—All contacts and unprotected passengers were vaccinated. The number of vaccinations was 5,691.

Public Works.—Several wards were repaired during the year. The water supply from the main reservoir was extended to the new South camp. Hitherto this camp, when occupied, was supplied from town with water in water-boats. A stand-pipe was also erected in the Northern half of the Central camp.

STATEMENT A.

MONTHS.			Vessels.	Crews.	Passengers.
January	...	...	35	3,142	7,132
February	...	...	36	3,468	9,248
March	...	...	63	4,291	14,576
April	...	...	339	6,344	10,046
May	...	...	274	3,705	12,827
June	...	...	84	4,158	10,308
July	...	...	74	4,430	9,985
August	...	...	71	4,222	9,985
September	...	...	59	3,813	10,274
October	...	...	40	3,811	7,965
November	...	...	59	3,686	11,211
December	...	...	71	4,523	12,969
			1,205	49,593	126,526

STATEMENT B.

				<i>Vessels.</i>
<i>India</i> —Bombay	...	...	...	54
Calcutta	...	...	...	68
Negapatam	...	...	...	47
Rangoon	...	...	...	119
Moulmein	...	...	...	21
<i>Ceylon</i> —Colombo	...	...	...	1
<i>China</i> —Hongkong	...	...	...	119
Amoy and Swatow	...	...	...	40
<i>Arabia</i> —Jeddah	...	...	...	9
<i>Siam</i> —Monthon of Puket	...	...	...	129
Kedah	...	...	...	521
Bangkok	...	...	...	1
<i>Straits Settlements</i> —Singapore	...	...	...	76

STATEMENT C.

MONTHS.			No. of Vessels.	No. of Passengers.	Monthly Average.
January	...	...	15	1,082	254·9
February	...	...	19	1,527	634·8
March	...	...	24	3,237	736·93
April	...	...	40	3,086	913·8
May	...	...	29	1,178	222·00
June	...	...	27	974	193·3
July	...	...	32	3,899	647·17
August	...	...	29	1,498	176·4
September	...	...	31	1,591	228·8
October	...	...	24	1,212	138·8
November	...	...	21	921	107·4
December	...	...	16	970	140·5

RAINFALL—PULAU JEREJAK.

January	...	...	1·39	No. of rainy days.	4 days
February	...	...	6·26	do.	10 "
March	...	...	5·33	do.	11 "
April	...	...	3·42	do.	10 "
May	..	...	8·01	do.	18 "
June	...	...	3·51	do.	5 "
July	...	...	3·75	do.	7 "
August	...	...	10·14	do.	10 "
September	...	...	17·48	do.	17 "
October	...	...	10·53	do.	21 "
November	...	...	7·09	dp.	16 "
December	...	...	3·04	do.	6 "
			79·95		135 "

Number of rainy days = 135

Greatest rainfall in one day = 2·35 on 25th September, 1908.

Malacca.

REPORT BY DR. P. H. HENNESSY, *Acting Medical Officer.*

A case of Cholera occurred on the *Lady Weld* from Singapore. No passengers were allowed to land and she was sent on to Singapore for quarantine.

In the latter part of the year owing to an outbreak of cholera at Singapore all ships coming from that port were inspected and the passengers landing here were given passports and kept under observation. Three thousand and seventy-four passengers were examined.

APPENDIX I.

Government Analyst's Department.

REPORT BY DR. FRANKLAND DENT, M. SC., PH. D., F. I. C., *Government Analyst.*

The amount of work carried out by this Department during 1908 again shows a considerable increase over that of the previous year. The number of reports on general analytical work issued was 506 as against 432 in 1907, whilst the petroleum reports, official and private, increased from 216 to 228.

The total revenue for the year was \$12,545 as against \$12,455 in 1907 and \$10,744 in 1906.

The large amount of purely routine work done left no time for research work in connection with opium or the many poisonous principles occurring in local plants which have so far not been investigated or described by any one. This was rendered still more impossible by my being short-handed during the greater part of the year.

Petroleum.

(a) *Kerosine Oil*.—The quantity of petroleum, other than dangerous petroleum, both in tins and in bulk as well as the number of shipments into the Settlement of Singapore, shows an increase over that of the previous year.

The following statement gives a comparison between these quantities imported during the years under consideration:—

Description of Oil.		1907.			1908.		
		Number of Consignments.	Tins.	Tons.	Number of Consignments.	Tins.	Tons.
American Oil	Devoes ...	5	229,576	...	7	176,090	...
	Sylvan ...	6	185,000	...	4	135,000	...
Langkat Oil	Cross ...	27	99,236	...	41	139,808	...
	Crown ...	51	232,480	...	57	208,754	...
	Dragon ...	23	39,800	...	22	398,000	...
	Lamp Glass..	8	31,840	...	19	66,051	...
	Rising Sun...	4	11,050	...	1	2,139	...
	Silver Light..	10	113,186	...	...	...	...
Aroe Bay ...	...	2	...	3,600	2	...	3,300
Balik Papan ...	...	8	...	18,877	14	...	31,510
Batavia ...	...	1	2,500	...	...	...	...
Palembang...	...	6	...	5,555	3	...	3,900
Petroleum Residue ...	...	12	...	29,705	10	...	29,467
Pulau Brandan ...	...	1	...	500	1	...	350
Palau Samboe ...	...	17	46,935	3,600	25	...	1,853
Soe-Soe ...	...	6	...	13,950	6	...	10,690
Engine Oil ...	...	...	...	...	4	16,986	...
Batoam ...	...	...	...	...	1	...	5,070
Total ...		187	991,603	75,787	217	1,142,828	86,140

Only on one occasion was oil, not previously declared to be dangerous, found to flash (at 72°) below the local standard.

Twenty-seven test certificates were issued for oil consigned to Port Dickson, Sarawak, Samarang, Hongkong, Calcutta, Madras and Copenhagen, in order to avoid delay at these and intermediate ports.

In order to verify other instruments used in neighbouring localities, 10 samples of kerosine were at different times forwarded here to be tested for their flashpoints with the standard instrument kept for this purpose in the laboratory.

All vessels carrying oil, not declared to be dangerous and not being of well-known safe brands, are inspected and the petroleum tested before they are allowed to enter the Harbour Limits. Three cases occurred in which the oil was found to be low-flash and in one of these, when the oil was found to flash at 69° Fahrenheit, the vessel shortly after being moved to the Dangerous Petroleum Anchorage, caught fire and had to be scuttled, thus affording a complete justification of what some of the importers regard as a hardship and an interference with trade.

(b) *Dangerous Petroleum*.—In all cases before dangerous petroleum was allowed to be imported into the Island of Singapore the receptacles containing it were examined and proved to be sufficiently substantial for import.

(c) *Tank testing*.—Twenty-nine petroleum vessels were tested for vapour by means of Redwood's Standard Instrument before being allowed to enter the Dry Docks at Tanjong Pagar. An explosion occurred in two of the tanks of the Hulk *Tancarville* which at the time of testing were full of water, and after the enquiry which followed, the Committee recommended to Government that certain restrictions should be placed on all such vessels, these are now included in the Rules under "The Petroleum Ordinance 1908."

Explosives.

Eight shipments of explosives containing 1,299 packages of Dynamite and 2,217 of Gelignite were sampled and tested on importation into the Settlement according to the Rules made under "The Explosives Ordinance 1899." They all passed the prescribed tests.

A serious explosion took place during the year at Pulau Ubin but consequent tests with the explosives in use there showed that no deterioration had taken place in their condition and that the cause of the accident must be sought elsewhere.

Counterfeit Coins.—Thirty sets of exhibits in connection with counterfeiting or uttering base coins were forwarded for examination and analysis by the Police.

The total number of coins examined was 697 which comprised 72 dollars, 34 fifty-cent pieces, 336 twenty-cent pieces, 161 ten-cent pieces, 77 five-cent pieces, and 17 one-cent pieces, of these only 63 were found to be genuine.

Many of these coins were accompanied by moulds, pieces of Britannia-metal, files, plating solutions, etc., used in their manufacture.

A prosecution against a local Dispensary for supplying most of the Potassium Cyanide found amongst these exhibits having failed, special Rules were made by Order in Council more effectually to control the sale of this Poison used in the plating bath.

One of these cases proved that an attempt had been made to melt down the older and larger one-dollar pieces into the smaller and newer ones. But owing to the difficulty in doing this on account of the high melting point of silver, the counterfeiter had evidently had recourse to the more easily melting lead, several badly made dollars of this metal being found among the exhibits.

On another case of counterfeiting it was proved that the informer himself had planted the coins and that these were genuine dollars so filed at the edges as to simulate base ones such as are usually cast in Plaster of Paris moulds. Under the microscope, however, the true milling could easily be distinguished under these file marks. The informer was convicted.

Stains on the persons and clothes of the prisoners, connecting them with the manufacture of spurious coins, were detected in many cases.

Methylation of Spirit.—One hundred and fifty-seven casks, 39 drums of 10 gallons each and 431 cases of 8 gallons each of arrack were methylated by the addition of Pyridine, for which purpose 250 lbs. were sold by this Department or the spirit was tested and certified as having been previously methylated.

Liquors.

(a) *Samsoo*.—Six samples from Singapore and 2 from Penang were analysed and reported upon, and although the results showed the probability of their being the genuine pot-still product, yet the very considerable differences obtained in the analysis, suggests the advisability of setting up some standard, which does not exist at present for this liquor, in order to prevent its adulteration with arrack or other silent spirit.

(b) *Whisky*.—One sample from Penang proved to be merely a coloured mixture of alcohol and water.

(c) *Cognac Brandy*.—Two samples from Penang were found to be purely artificial, moreover one of them was considerably overdiluted contrary to section 109 (2) (b) of "The Liquors Ordinance 1906." Three samples from Singapore consisted of diluted alcohol, admixed with little or no genuine brandy.

(d) *Port*.—One sample from Penang proved to be artificial and was coloured with some aniline dye.

(e) *Beer*.—One sample from Singapore was of good quality.

(f) *Brandy and Whisky Essences*.—One sample of each was found to be of the usual composition.

(g) *Local Spirits*.—Two samples were analysed and reported upon.

Chandu.—Thirty-nine samples were received from various parts of the Colony under "The Opium Ordinance 1906" and all proved to be of the usual good quality. In a few cases the smaller hun-packets were found to be under weight, whilst the larger packets and chi-pots were as often over-weight.

In addition to the above 11 other samples were analysed, these included 2 of chandu dross sent by the Acting Second Magistrate, Singapore, for proof as to whether they were from Singapore Farm Chandu or not. It is impossible to form a definite opinion in such cases unless a trace of some chemical, easily identified, is added during the preparation of the chandu, as was suggested by me some time ago.

Drugs.

(a) *Pharmaceutical Preparations*.—Fourteen samples were sent in for investigation. These comprised Carbolic lotion, of which one sample proved to be 40 times the correct strength and another to contain no Carbolic Acid at all. Phenacetin, Perchloride of Mercury solutions, Liquor Arsenicalis, etc.

(b) *Deleterious Drugs*:—

(1) *Police Seizures*.—Ninety-eight sets of exhibits were sent in by the Police Authorities for examination. These comprised 4,192 separate articles, mostly paper packages containing morphine or cocaine salts, hypodermic syringes, mixing cups and other paraphernalia usually found in raids on morphine dens.

The total amount of morphine hydrochlorate amounted to $9,754\frac{1}{5}$ grains, whilst the cocaine salt totalled $4,045\frac{1}{5}$ grains, from which it follows that the latter was equal to $29\frac{7}{10}$ per cent by weight of the total alkaloids.

Taking into consideration the large number of these seizures, this number may be taken to show roughly the proportion of cocaine in common use amongst injectors.

Last year the proportion was 13 per cent whilst in 1906 it was only 10 per cent, which shows a large continuous increase in the use of this drug for such purposes.

(2) *Excise Seizures*.—Five seizures occurred under this head, the total quantities of Morphine and Cocaine Hydrochlorate sent here for examination were 204,750 grains and 31,500 grains respectively.

(3) *Anti-Opium Pills*.—Six samples, of which 3 came from Penang, 2 from Singapore and 1 from Bangkok were sent for examination as to the presence of morphine. Opium was found in two cases and morphine in the other two.

(4) *Other Preparations*.—Two samples from Penang showed the absence of any Deleterious Drug, whilst a powder from Muar proved to contain sulphate of mercury in addition to morphine hydrochlorate.

Toxicology.

(a) *Stomach, etc*.—Forty-five exhibits under this head were received for the most part from the two Singapore Hospitals.

The following statement shows at a glance where they came from and the results of the investigations :—

WHERE FROM.	MORPHINE.	OPIMUM OR CHANDU.	CHANDU DROSS.	STRYCHNINE ($\frac{3}{4}$ GRAINS.)	ARSENIC ($1\frac{1}{10}$ TO $2\frac{1}{2}$ GRAINS.)	ALCOHOL.	ANIMAL TOXINS.	NO POISON PRESENT.	UNIDENTIFIED.	TOTAL.
General Hospital, Singapore ...	2	9	...	1	...	...	1	12	...	25
Tan Tock Seng's Hospital, Singapore...	1	2	2	...	2	2	...	3	2	14
Acting Colonial Surgeon, Penang ...	1	...	...	...	...	...	...	...	...	1
Chief Police Officer, Penang ...	...	...	...	...	...	...	...	2	...	2
Coroner, Penang ...	...	1	...	...	...	...	...	...	...	1
Coroner, Malacca ...	...	...	...	...	...	...	...	1	...	1
Assistant Commissioner of Police, Pahang ...	...	1	...	...	...	...	...	...	...	1
Total ...	4	13	2	1	2	2	1	18	2	45

Although the total number of these exhibits is greater than that sent last year, yet it should be pointed out that the number of cases in which poison was detected is one less.

In addition to the above, the stomachs of 4 dogs from the Veterinary Surgeon, Singapore, and of one horse from the Chief Police Officer, Singapore, were examined with negative results.

(b) *Poisoning Cases.*—Several interesting cases occurred under this head. Amongst these a Chinaman and woman were killed by a hitherto unknown alkaloid, which had apparently been administered in a cup of sweetened coffee. Two Bengalis were killed and several others besides were stated to have been made very ill by eating cakes containing arsenic, altogether a large quantity of this poison was recovered in the exhibits sent, and from one vomit alone 111 grains of Arsenic were obtained.

A decoction containing Datura leaves was used in an unsuccessful attempt to poison and rob a Towkay and the same drug was mixed with the food of three Bengalis in Penang, who subsequently recovered under prompt treatment.

As usual a number of imaginary poisons were forwarded to the Laboratory and proved to be quite harmless. For instance, in a case of alleged drugging at Alor Gajah the poison, a powder, was found to consist of charcoal and sand. Some harmless pills were stated to have produced intoxication when eaten by a Chinting. Some pieces of toast, said to have been spread with a love potion proved to be quite ordinary toast, whilst at Kedah alarming symptoms were alleged to have been caused by eating some starch.

Bloodstains.—Twelve sets of exhibits from Singapore and one from Malacca were sent in for examination, these consisted of 29 separate articles, including the usual parangs, knives, bajus, etc. Blood was detected on 24 of them.

Urine.—Six samples were sent in for analysis besides those forwarded in connection with poisoning cases.

Milk.—Twenty-eight samples were received from Singapore, mostly from the Medical Department. Sixteen of these were classed as good and two were of low quality, 3 were probably admixed with buffalo milk, whilst one was found to contain at least 9·4 per cent of added water. Five of the samples contained cane sugar varying from a trace up to 0·86 per cent and in one of these about 15 per cent of added water was also present. The presence of this cane sugar is evidently due to the addition of sweetened condensed milk (and water) to make up the day's requirements.

Police Court proceedings for supplying milk to Government institutions were undertaken in two cases and resulted in fines of \$210 and \$100 respectively. Of five samples sent by the Medical Officer, Malacca, one was found to be of good quality

whilst the remaining four were found to be adulterated with added water, varying from at least $6\frac{3}{4}$ to $12\frac{1}{2}$ per cent.

Water.—Of 31 samples received for sanitary analysis, ten came from Singapore, of these two were reported as being contaminated by sewage and two as of doubtful purity. The rest were good. Seven samples were sent in connection with a local law-suit and all these contained various proportions of sea-water. Five samples came from Malacca, two each from Ipoh and Penang, 3 from Johore, and 1 each from Penang and Province Wellesley, all these were found to be of good quality for drinking and domestic purposes.

Copra Oil Cake.—Nine samples were analysed and reported upon.

Minerals.—Sixty-two samples comprising 13 each of Wolframite and Gold Ore, 11 of Tin Ore, 9 of Coal, 5 of Lead Ore, 4 of Phosphate, 3 of Copper Ore, 2 of Wolfram-tin Ore, and 1 each of Scheelite and Lead-tin Ore, were assayed and reported upon.

Miscellaneous.—A large number of odd samples falling under no particular head were sent in for analysis and report. These included :—Brass filings which were being hawked about for sale as gold, 11 cartridges in a murder case, 29 stamps from the Postmaster-General for proof as to the obliteration of postmarks, ashes of a burnt letter in a case of pillaging a letter box to obtain the stamp, pieces of blanket destroyed by Nitric Acid from Malacca, floor-sweepings in a counterfeit coining case, 3 samples of cement in a case of dishonestly detaining stolen property, 12 samples of soda water, 2 of petroleum residue, 3 of spirit, samples of pearl, tapioca for proof of adulteration with sago, blood, lard, cutch, ghee, etc.

Staff.—Mr. WILLIAM SEELHORST, F.C.S., Senior Laboratory Assistant, resigned his post on 16th January and Mr. J. C. COWAP, B.Sc., A.I.C., was appointed Second Assistant Government Analyst, Singapore, and assumed his duties on 9th October.

APPENDIX 7.

Annual Report of the Straits and Federated Malay States Government Medical School for 1908.

REPORT BY DR. G. D. FREER, *Principal*.

1. *Full Course for the Diploma.*—Sixteen new students were admitted in March, and three, including one female student, in July, making a total of 58 students on the rolls for the full five years' course during the year. They were distributed as follows :—

1st year students	...	...	...	...	19
2nd „ „	...	...	...	...	12
3rd „ „	...	...	...	...	11
4th „ „	...	...	...	...	16

2. Of the new students, 9 were Tamils, 5 Chinese, 2 Eurasians, 2 Ceylonese, and 1 Japanese.

3. The scholarships of three students whose progress had proved unsatisfactory were withdrawn. Two of them resigned, but the third was allowed to remain in the School on payment of fees. One Chinese student who had been more than three years in the School, left for the purpose of continuing his medical studies in London. One Ceylonese student, who was holding at the same time a post in the Pathological Department also resigned. The new female student, I regret to say, found she was unable for private reasons of her own to remain at the School, and left to join the Nursing Staff of the General Hospital.

4. The results of the examinations for the Diploma are shown in the lists appended to this report and are on the whole satisfactory. The weakest subject so far appears to be Practical Pharmacy, and as the same weakness has also been noticed in the Hospital Assistant Class, it is proposed to obtain the services of a British qualified dispensing Chemist to lecture and demonstrate on this important branch of medical training. Sanction has already been asked for the necessary expenditure. As regards the two female students now in the School, one has just completed her third year and the other her second year, and both have so far held their own in the examinations.

5. *Hospital Assistant Course.*—Twelve new students were admitted in March and two in July, making with 10 already in the School, a total of 22 in this the two years' course of training. Of the new students, 6 were asked to resign after being on probation for three months, and of the remainder 1 was taken on for the Straits, 2 for the Selangor, 3 for the Negri Sembilan, and 1 for the Pahang Medical Service. One student joined on his own account and paid fees, after throwing up a lucrative appointment under Government in the Post Office.

6. In May 2 students, and in December 1 student, completed the course and passed out, 2 for the Straits, and 1 for the Perak Medical Service. Seven other students should also have passed out and been available for Government Service, but they were unable to pass in Practical Pharmacy. The weakness in this subject has been referred to above and it is hoped it will soon be rectified. Except one student who also failed in *Materia Medica*, they had passed in all the other subjects of their examinations.

7. The whole course of instruction for Hospital Assistants is being reorganized, the aim being to make it as far as possible practical. With this object in view more time and attention will be given to Practical Pharmacy, instruction in Elementary Physics will be supplemented by visits to the Meteorological station and practical demonstrations on the use of the various apparatus there; the Elementary Hygiene course will include visits to the Quarantine Stations where the proper methods of employing disinfectors and disinfectants can be shown as in actual use, and the correct method of performing vaccination can be taught; the work in the Hospitals will include instruction in the use of the microscope, in the making and staining of blood films, in the examination of fæces for the ova of intestinal worms, and so on.

8. *Staff and General Remarks.*—All the courses of instruction laid down in the curriculum have been carried out as they become due. Lectures on Medicine were given by Drs. GALLOWAY and LEASK, on Surgery by myself, on Forensic Medicine by Dr. ELLIS, and on Pathology by Dr. FINLAYSON. Dr. FOWLIE resumed his course of instruction in Midwifery which had been ably carried on in his absence by Dr. BLACK. The lectures in *Materia Medica* were given by Dr. LIM BOON KENG and in his absence by Dr. MURRAY ROBERTSON, Mr. RIDLEY resumed his lectures on Botany, and Dr. BROOKE in Elementary Hygiene, on their return from leave. In order to enable me to lecture on Surgery, and give more time to the Hospital work of the students, Dr. KEITH took over charge of the Dissecting Room in addition to his own duties, and Drs. FINLAYSON and ELLIS also helped by relieving me of part of the Anatomy lectures. Now the Senior students are doing Hospital work, special supervision is necessary in directing their clinical studies, in instructing them in the correct methods of physical diagnosis, and in the principles of minor surgery.

9. The number of applications both for the full 5 years' course for the Diploma and for the Hospital Assistants' 2 years' course continues to increase.

A satisfactory feature of the increasing popularity of the Medical School, especially among the Chinese, is that the number of applications from students previously educated in the Colony or Federated Malay States, to compete in the Compulsory Preliminary Examination or who have passed an equivalent examination, is now sufficient to fill the available scholarships.

10. *Buildings and Apparatus.*—Towards the end of the year the new Maternity Hospital was finished and occupied. It is conveniently near the School and a room in it has been allotted and furnished for the use of students doing duty there. When it becomes more widely known among the native population that maternity patients can be admitted there free of charge, it is hoped there will be no further difficulty in enabling the students to conduct under supervision the required number of cases.

11. Numerous specimens have been added to the Museum collection which now contains many valuable examples of various diseased conditions. They are at present housed in the Lecture Room, but the collection will soon be large enough to justify a separate building of its own. The mounting, arranging and cataloguing have been done by Dr. KEITH.

12. An expenditure of \$2,000 was sanctioned out of the School Funds for the purpose of obtaining additional apparatus and books. Of this \$1,423.53 has already been spent, and the balance has been reserved for the purchase of a magic lantern and slides to illustrate various tropical diseases, the development of the malarial parasite, and so forth.

13. A tiffin room has been built for the students at a cost of \$400, which was sanctioned out of available School Funds. The Public Works Department were good enough to draw the plans, call for contracts, and supervise the construction.

APPENDIX K.

Pathological Department.

REPORT BY DR. G. A. FINLAYSON, *Government Pathologist.*

I. Laboratory.

During the year 4,265 specimens were examined as compared with 2,573 in 1907.

(MALARIA.—TAN TOCK SENG HOSPITAL.)

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Tertian	24	24	18	20	18	23	22	26	26	33	34	43	311
Quartan	13	9	4	3	5	2	9	5	10	10	5	7	82
Subtertian	51	38	52	84	100	117	101	115	98	113	141	115	1,125
Mixed Tertian and Subtertian ... ..	...	1	...	...	...	3	...	...	1	...	2	...	7
	88	72	74	107	123	145	132	146	135	156	182	165	1,525

Malaria.—The systematic examination of the blood of patients entering Tan Tock Seng Hospital with a temperature above normal was continued. In 1,525 the malarial parasite was demonstrated, the varieties of the infection and the case incidence monthly being shown in the above table.

As may be observed the incidence is greater during the second than during the first part of the year, but the difference is not so marked as to call for any special observations. I have little to add concerning the disease beyond what has been reiterated in previous reports.

WIDAL REACTION.

In 225 instances the reaction was positive, but, as in a few cases a second specimen was asked for, as the first gave rather a doubtful reaction, the number represents about 220 cases.

Table showing monthly Incidence.

January ... 9	May ... 26	September ... 11
February ... 18	June ... 25	October ... 16
March ... 15	July ... 36	November ... 23
April ... 15	August ... 21	December ... 10
57	108	60

I desire again to draw attention to the investigations into "Typhoid Carriers" which are being carried out in different parts of the world. It would be of immense advantage to have research work carried out here on the patients and on the contacts with a view to discovering whether *B. Typhosus* could be isolated from the discharges and how long the organism persisted. Naturally this would entail a considerable increase in staff, but the laboratory is now fully equipped to carry out this and similar researches into the etiology of tropical diseases.

TUBERCULOSIS.

In 64 specimens of sputa sent for examination, the specific bacillus was observed.

DIPHTHERIA.

The causal organism was seen in 7 instances. It appears to be extremely difficult to trace the source of infection in these isolated cases.

VARIOUS.

A number of smears of urethral pus were forwarded and in several the *Micrococcus Gonorrhœae* was seen. Several smears were also examined in suspected cases of Leprosy, but in a few only was the typical intracellular bacillus observed.

Others included specimens of urine for a report on the deposit, fæces for the presence or absence of ova and blood films for differential count.

RATS.

During the first half of the year about 1,500 rats were examined—of these nine were suffering from plague. There does not appear to be any marked epizootic disease amongst these rodents. The greater proportion examined were of the variety—*Mus Decumanus*, though *Mus Rattus* also exists in the town in fair numbers.

January	...	...	...	...	102
February	...	...	...	...	96.3 infected.
March	...	...	...	...	156.4 „
April	...	...	...	...	406.1 „
May	...	...	...	...	358.1 „
June	...	...	...	...	267
July	...	...	...	...	127
					—
					1,512
					—

WATER—MUNICIPAL SUPPLY.

Twenty-eight samples of the supply, taken from taps situated in widely different parts of the town were examined during the year. The number of organisms present varied from 65-560 per c.c. with an average of 270 per c.c. organisms, few in number per c.c. of the Coli group were isolated on using Conradi's or Endo's media, while of almost every sample .05 c.c. produced gas and acid in McConkey's medium. These results correspond closely to the observations made in former years, so that the standard of the supply is practically constant. No pathogenic organisms of the intestinal group were isolated at any time.

Malacca—Five samples were examined and the reports have been already forwarded.

MORTUARIES.

The report from each has been summarized separately.

1. Tan Tock Seng Hospital.

Total number of autopsies performed, 1,427.

Return showing the diseases to which death was directly attributed:—

Tuberculosis 233, Lobar Pneumonia 54, Dysentery 361, Diseases of Bronchi, pleuræ, etc., 55, Beri-beri 103, Enteric Fever 50, Malaria 253, Diseases of Liver 24, Sapræmic conditions 53, Diseases of excretory system 54, Malignant growth 15.

Poisoning and accidents 32, Diseases of Nervous system 27, Diseases of Circulatory system 59, Diseases of Alimentary canal 36, Anchylostomiasis, etc., 18.

RETURN SHOWING THE INCIDENCE OF DISEASE.

General Diseases.

1. Beri-beri	...	...	116	7. Pyæmia	...	..	4
2. Enteric Fever	...	...	50	8. Cholera	...	...	5
3. Malaria	...	...	372	9. Diseases of blood	...	...	3
4. Kala-Azar	...	...	1	10. Tetanus	...	...	1
5. Erysipelas	...	...	1	11. New growth	...	...	16
6. Septicæmia	...	...	11	12. Dysentery	...	...	459

A.—Nervous System.

1. Pachymeningitis	...	3	5. Sarcoma of brain	...	1
2. Leptomeningitis	...	8	6. Spastic paraplegia	...	1
3. Abscess of brain	...	3	7. Tubercular meningitis	...	5
4. Gumma of brain	...	4			

B.—Circulatory System.

1. Pericarditis, adhesive	...	7	7. Aneurism, left ventricle	...	2
2. „ suppurative	...	4	aortic arch	...	11
3. „ sero-fibrinous	17		thoracic aorta	...	1
4. Endocarditis, Chronic—			abdominal aorta	...	2
mitral	...	21	innominate artery	...	1
aortic	...	23	8. Thrombosis, portal vein	...	1
5. Endocarditis, Ulcerative—			iliac veins	...	2
mitral	...	2	femoral vein	...	1
aortic	...	2	cerebral veins	11	
tricuspid	...	1	9. Hæmorrhage, subdural	...	6
left ventricular wall	2		cerebral	...	2
6. Acute dilatation of heart,			10. Icterus Neonatorum	...	1
fatty, etc.	...	8			

C.—Diseases of Respiratory System.

1. Bronchitis, acute, chronic	...	22	Pleuritis, chronic with great		
2. Bronchiectasis	...	1	thickening	...	29
3. Broncho-pneumonia	...	45	10. Pulmonary Infarct	...	4
4. Lobar pneumonia	...	76	11. Tuberculosis of lungs, active	253	
5. Pulmonary abscess	...	4	„ „ quies-		
6. „ gangrene	...	16	cent	...	16
7. Empyema, tubercular	...	5	12. Fibroid phthisis	...	1
pneumococcic	...	32	13. Acute miliary tuberculosis	...	6
8. Pyopneumothorax, tubercu-			14. General Tuberculosis	...	1
lar	...	12	15. Laryngitis, tubercular	...	80
„ pneu-			syphilitic	...	1
mococcic	...	1	16. Epithelioma of larynx	...	1
9. Pleuritis, acute	...	30	17. Acute inflammation of		
„ „ with effusion	...	8	ethmoid and frontal sinuses	...	1

D.—Diseases of Digestive System.

1. Necrosis of jaw	...	1	14. Dysentery, amoebic acute	...	143
2. Parotitis, suppurative	...	1	„ „ chronic	...	166
3. Gastric ulcer	...	11	„ bacillary acute	...	94
4. Duodenal ulcer	...	4	„ „ chronic	...	56
5. Fibrous stricture of pylorus	...	1	15. Ulcerative Colitis acute	...	12
6. Carcinoma of stomach	...	4	„ chronic	...	20
7. Acute enteritis and enterocolitis	...	25	16. Enteric Fever	...	50
8. Intussusception	...	1	17. Perihepatitis, chronic	...	32
9. Stricture of rectum	...	1	18. Hepatic abscess, amoebic	...	27
10. Fistula in ano	...	2	„ „ septic	...	3
11. Hernia inguinal, irreducible	...	4	19. Gumma of liver	...	16
„ „ reducible	...	7	20. Cirrhosis of liver	...	34
12. Peritonitis—			21. Calculi in gall bladder or		
„ sero-fibrinous	...	11	ducts	...	16
„ suppurative	...	41	22. Suppurative cholecystitis, etc.	...	5
„ adhesive	...	4	23. Tubercular disease of liver	...	7
„ tubercular	...	15	24. Perisplenitis, chronic	...	23
13. Tubercular ulceration of gut,			25. Splenic infarct	...	10
small	...	148	26. „ abscess	...	4
„ „ large	...	48	27. „ gumma	...	7
Tubercular ulceration of ap-			28. Tubercular disease of spleen	...	17
pendix	...	1	29. Actinomycosis of liver	...	1

E.—Diseases of Genito-Urinary System.

1. Nephritis, Parenchymatous,		10. Stricture of urethra	...	1
" acute	8	11. Rupture of urethra	...	1
" chronic	21	12. Tuberculosis of bladder	...	1
2. " interstitial	74	13. Tuberculosis of kidney	...	16
3. Hydronephrosis	...	14. Calculi, renal, etc.	...	7
4. Atrophy of kidney	...	15. Calculi, prostatic	...	1
5. Suppurative pyelitis	...	16. Gumma of testis	...	2
6. Pyelonephritis	...	17. Hernia testis	...	1
7. Abscess of kidney	...	18. Suppurative hydrocele	...	1
8. Infarct of kidney	...	19. Cystic disease of ovary	...	2
9. Cystitis, acute	...	20. Pyosalpinx	...	1

F.—Diseases of Bones and Joints.

1. Caries of spine, tubercular	4	6. Suppuration of middle ear	1
2. Caries of sternum	...	7. Suppurative synovitis knee	
3. Caries of Tarsal bones	...	joint	...
4. Tubercular disease of elbow	...	8. Arthritis, chronic, hip joint	3
joint	...	" " knee joint	1
5. Tubercular disease of hip	...		
joint	...		

G.—New Growth and Malformations.

1. Adeno, carimoma of stomach	4	7. Cancer arising from glands	
2. " " liver	...	in neck	...
3. " " suprarenal	1	8. Cystic disease of Thyroid	
4. Sarcoma, sacral	...	gland	...
5. " mediastinal	...	9. Patent foramen ovale	...
6. Epithelioma of larynx	...		2

H.—Affections produced by External Causes.

1. Poisoning.—		5. Hanging	...	4
" Alcoholic	...	6. Drowning	...	3
" Morphine	...	7. Gun-shot wounds	...	1
" Opium	...	8. Explosives	...	1
" Brucine	...	9. Rupture of spleen, malarial	...	3
" Arsenical	...	" non-malarial	...	3
2. Fracture.—		10. Rupture of heart	...	1
" Patella	...	11. Rupture of bladder	...	2
" Skull	...	12. Rupture of gut	...	2
" Ribs	...	13. Rupture of urethra	...	1
" Thigh and arm	...	14. Iodine blistering	...	1
3. Stab wounds	...	15. Multiple injuries	...	3
4. Cut throat	...			

K.—Varied conditions.

1. Hæmorrhage into iliopsoas		Posterior mediastinum	1,
muscle	...	lower extremity	8
2. Abscesses—			...
Perineal 3, ischio-rectal 2	...	4. Gangrene—	
Pelvic 1, iliopsoas 8	...	Foot 4, leg 11, perineum 1,	
Antrum of highmore	...	scrotum 3, cheek 2,	
Axillary 2, subphrenic 1	...	thigh 1, amputation	
Multiple	...	stump, leg 1	...
3. Acute Cellulitis.—		5. General debility and seni-	23
Axilla 1, Arm and leg 1,		lity	...
Neck 1	...	5. Anchylostomiasis	...
	3	7. Unknown	...

Mortuary at the General Hospital.

Number of autopsies performed ... 410

Return showing the diseases to which death was attributed.—

Tuberculosis	...	31	Poisoning and accidents	...	69
Dysentery	...	30	Diseases of liver	...	5
Malaria	...	98	Diseases of excretory system	...	10
Beri-beri	...	27	Diseases of circulatory system	...	19
Malignant growth	...	7	Diseases of nervous system	...	7
Enteric Fever	...	22	Diseases of Bronchi, etc.	...	14
Cholera	...	14	Lobar pneumonia	...	16
Varied conditions	...	17	Diseases of Alimentary canal	...	16
Sapraemic conditions	...	8			

Return showing the incidence of Disease.

GENERAL DISEASES.

1. Beri-beri	...	29	7. Diseases of blood	...	2
2. Malaria	...	132	(Pernicious anæmia 1)		
3. Enteric Fever	...	24	(Splenic anæmia 1)		
4. Cholera	...	14	8. Septicæmia	...	8
5. Bubonic Plague	...	1	9. Sapraemia	...	2
6. Dysentery	...	48	10. Pyæmia	...	1
			11. New Growth	...	9

A.—Nervous System.

1. Leptomeningitis	...	5	3. Cerebellar abscess	...	1
2. Spinal myelitis	...	1	4. Endothelioma of brain	...	1

B.—Circulatory System.

1. Endocarditis chronic, aortic	6	Aneurism, aortic arch	...	6
2. „ ulcerative	2	6. Acute cardiac dilatation	...	2
3. Myocarditis	1	7. Thrombosis, vena cava	...	2
4. Pericarditis, chronic	2	8. Cerebral Hæmorrhage	...	2
5. Aneurism, heart	1			

C.—Diseases of Respiratory System.

1. Bronchitis, acute & chronic	5	6. Abscess of lung	...	5
2. Broncho-pneumonia	10	7. Gumma of lung	...	1
3. Pleuritis, recent	10	8. Infarct of lung	...	1
„ adhesive	112	9. Tuberculosis of lungs, active	45	
„ with effusion	1	„ quiescent	10	
„ tubercular	42	„ larynx	5	
4. Empyema	6	10. Syphilitic ulceration of		
5. Pneumonia, lobar	19	larynx	1	
„ septic	1	11. Miliary tuberculosis	3	

D.—Digestive System.

1. Suppurative parotitis	1	12. Sprue	...	1
2. Gastric ulcer	1	13. Enteric Fever	...	24
3. Acute enteritis and Entero-		14. Cirrhosis of liver	...	9
colitis	13	15. Perihepatitis, chronic	...	8
4. Duodenal ulcer	2	16. Calculi in Gall bladder and		
5. Appendicitis, acute	2	ducts	...	5
6. Stricture of rectum	1	17. Rupture of liver	...	1
7. Hernia, inguinal	4	18. Gumma of liver	...	7
8. Peritonitis, adhesive	1	19. Hepatic abscess, amœbic	8	
„ suppurative	24	Hepatic abscess, septic	1	
9. Tubercular ulceration of gut		20. Suppurative cholecystitis, etc.	2	
small	16	21. Tubercular disease of liver	1	
Tubercular ulceration of gut		22. Perisplenitis, chronic	16	
large	11	23. Abscess of spleen	1	
10. Dysentery, amœbic acute	29	24. Gumma of spleen	2	
„ „ chronic	6	25. Infarct of spleen	4	
„ bacillary acute	7	26. Rupture of spleen	6	
„ „ chronic	4	27. Hæmorrhagic pancreatitis	1	
11. Ulcerative Colitis	2	28. Schistosomum Japonicum	1	

E.—Genito-Urinary System.

1. Nephritis parenchym, acute	4	8. Tuberculosis of kidney	...	3
" " chronic	8	9. Tuberculosis of bladder	...	1
" " interstitial	15	10. Cystitis, acute	...	2
2. Pyelonephritis	...	11. Rupture of urethra	...	1
3. Surgical kidney	...	12. Rupture of bladder	...	1
4. Abscess of kidney	...	13. Abscess of prostate	...	1
5. Infarct of kidney	...	14. Endometritis, acute	...	1
6. Hydronephrosis	...	15. Salpingo-oophoritis	...	10
7. Calculi, renal	...	16. Cystic disease of ovary	...	1

F.—Diseases of Bones and Joints.

1. Caries of spine with psoas abscess	1	2. Suppurative synovitis, elbow joint	1
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G.—New Growths, etc.

1. Carcinoma of Oesophagus	1	8. Carcinoma of rectum	...	1
2. " Stomach	...	9. Multilocular dentigerous cyst	...	1
3. " Testis	...	10. Monster	...	1
4. Sarcoma of large gut	...	11. Imperforate anus	...	1
5. Malignant tumour of neck	1	12. Undescended testis	...	1
6. Malignant tumour of abdominal wall	...	13. Intestinal polyp	...	1
7. Endothelioma-cerebral	...	14. Uterus Bicornis	...	1
	1	15. Patent Foramen ovale	...	1

H.—Affections produced by external causes.

1. Poisons.—		5. Gun-shot wounds	...	1
" Alcohol	...	6. Cut throat	...	2
" Strychnine	...	7. Suffocation	...	6
" Opium	...	8. Strangulation	...	1
" Morphine	...	9. Drowning	...	2
2. Fracture Skull	...	10. Burns	...	6
" Vertebral column	4	11. Laceration of brain	...	4
" Bones of foot	...	12. Rupture of spleen	...	5
" Thigh	...	13. Rupture of urethra	...	1
3. Multiple injuries	...	14. Rupture of bladder	...	1
4. Stab wounds	...			
	6			

K.—Varied conditions

1. Otitis media, acute	...	1	4. Starvation	...	2
2. Panophthalmitis	...	1	5. Unknown	...	6
3. Acute Cellulitis, lower limb	1		6. Anchylostomiasis	...	5

Mortuary.**QUARANTINE CAMP.**

Number of autopsies performed during the year—134.

Return showing the cause of death.

Cholera	...	77	Tuberculosis	...	1
Acute Entero-Colitis	...	6	Malaria	...	13
Dysentery	...	12	Beri-beri	...	2
Enteric Fever	...	2	Chronic bronchitis	...	1
Bubonic Plague	...	5	Pleurisy with effusion	...	1
Septic diseases	...	7	Lobar pneumonia	...	2
Hepatic cirrhosis	...	2	Parenchymatous nephritis	...	1
Acute cardiac dilatation	...	1	Rupture of spleen	...	1

Return showing incidence of disease.

GENERAL DISEASE.

Malaria, old and recent	...	23	Septicæmia	...	...	3
Beri-beri	...	4	Enteric Fever	...	...	2
Cholera	...	77	Bubonic Plague	...	...	5

Circulatory System.

1. Endocarditis chronic, mitral	3	2. Acute Cardiac dilatation	...	1
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Respiratory System.

1. Pleurisy with effusion	...	2	4. Bronchiectasis	...	1
2. Pleuritic adhesions, non-tubercular	...	27	5. Tuberculosis of lungs, active	...	4
3. Chronic bronchitis	...	1	6. Lobar pneumonia	...	2

Digestive System.

1. Acute Gastro-enteritis	...	3	9. Gumma of liver	...	1
2. Acute entero-colitis	...	2	10. Calculi in Gall bladder or ducts	...	3
3. Ulcerative colitis	...	2	11. Perisplenitis, chronic	...	12
4. Dysentery, amœbic	...	5	12. Splenic infarct	...	2
5. " bacillary	...	7	13. Appendicitis, chronic	...	1
6. Enteric fever	...	2	14. Cholecystitis, septic	...	1
7. Tuberculosis of small gut	...	1	15. Hæmorrhagic parotitis	...	1
8. Perihepatitis, chronic	...	4			
9. Hepatic cirrhosis	...	2			

Genito-Urinary System.

1. Nephritis parenchymatous, chronic	...	1	3. Nephritis septic	...	1
2. " interstitial	...	1	4. Cystitis	...	1
			5. Undescended testicle	...	1

General Disease.

1. *Beri-beri*.—There is no doubt that the percentage death-rate from this disease is on the decrease though it still occupies a high place in the statistical death return of the Colony. Researches are still being carried on in the Federated Malay States, and, if it can be shown that the infection is due to uncured rice, quite an advance in our knowledge of the ætiology of the disease will be acquired. In almost all the cases which come to the mortuary there is the typical condition of the heart with the marked effusion into the pericardium and subcutaneous tissues. From the condition of the heart which shows considerable hypertrophy of the ventricular walls in addition to the acute dilatation of the right side, producing thereby a great increase in the weight of the viscus, 12-15 oz. one is of opinion that the incubation or latent period of the infection is somewhat protracted, that it is not an acute but a subacute neuritis, as the heart makes apparent efforts to attain compensation. The increase in weight does not seem to be entirely due to the œdematous state of its tissues.

Enteric Fever.—In some twenty instances a perforated ulcer had caused a septic peritonitis. This disease maintains its usual endemic rate, and so long as the present conditions prevail it will no doubt continue to be fairly prevalent. There is little to add to previous reports and to the remarks made in a former part of this report.

Malaria.—So much has already been written on this disease that it only remains to emphasize certain points. In a large number the patients are admitted *in extremis*, dying within 24-36 hours afterwards. On examination one finds that 20-30 per cent of the red corpuscles are infected with the parasite. In such instances there is no hope of recovery as the corpuscular destruction is so great. If means were to be found for the dissemination of the knowledge of quinine treatment amongst the Chinese coolies, there is no doubt but that the incidence would be materially decreased, as such patients must have been suffering from the disease for some time and have had no medical treatment. Further there must be a diminution in the area of the breeding grounds of the mosquito by the drainage of the lowlying swampy districts.

Dysentery.—In 24 cases an ulcer had perforated and given rise to a localized or general peritonitis, while in 35 there was abscess formation in the liver either single or multiple. In several the abscess had attained such enormous dimensions that the hepatic substance remaining, merely formed a thin rind round the cavity.

As noted in previous reports the dysenteric condition in the majority is produced by the pathogenic amœba. It is maintained by BLACKHAM that the small gut is more liable to be infected in amœbic desentery than in the bacillary variety, but the obverse condition has been noted here. The necrosis of the mucosa caused by the B. Dysenteriae often extends for some 3-4 feet above the ileo-caecal valve into the small gut, the apices of the valvulae showing more destruction than the intervening areas, while in a number of cases of acute amœbic dysentery the sloughing is absolutely demarcated by the ileo-caecal valve. In certain cases of chronic amœbic dysentery one has noted the presence of small broncho-pneumonic patches in the lung which show a central area of necrosis, the pulmonary substance being converted into shreddy foul-smelling sloughs. From these patches Dr. KEITH and myself have isolated in four cases the B. Pyocyaneus along with other organisms but wish to make further investigations into the condition.

Considering the case incidence and the number of deaths caused annually by Dysentery—25 per cent of all cases examined showing either recent or old lesions in the bowel—the question of its diminution, in my opinion, is of equal importance to the diminution of Beri-beri, Malaria or Tuberculosis. We hope to submit a special report on the disease before the end of the current year.

Plague.—Only a few sporadic cases occurred, all being of the bubonic type.

Cholera.—The epidemic this year broke out towards the latter end and extended into 1909. There is no doubt that the infective agent is introduced on each occasion from without, and that an epidemic may break forth at any time of the year, depending on the season the disease is prevalent in other places. In the majority the lesions were typical, but one desires to call attention to certain cases where death occurs some 4-6 days after the onset. In these instances a definite reaction has taken place after the primary collapse, the patient is very restless, tossing himself from side to side of the bed, or ceaselessly changing his position from the bed to the floor of the ward. He complains of feeling hot and a sense of oppressiveness in the præcordial or epigastric region while the breathing is rather hurried and gasping. The pulse is full soft and regular, the tongue is fairly clean and the biliary secretion has been established, the stools, though fluid or semi-fluid, being of a yellowish tint. There has, as a rule, been some secretion of urine. The face is flushed and the expression somewhat anxious, while there may, or may not, be present rather a distressing hiccough. The most marked sign in such cases, on post-mortem examination is the presence of a number of punctiform hæmorrhages or somewhat diffuse petechiae either over the base of the heart or running in the line of the coronary vessels under the epicardium. It is probable that the symptoms are produced by thrombosis of the coronary vessels, but a more thorough examination of the condition has to be made before a definite opinion can be arrived at.

Malignant Disease.—As in previous reports the interesting feature is the large number of primary carcinoma of the liver. What factor determines this, it is naturally impossible to give an opinion, as the ætiology of new growths still remains obscure. Quite a number of the specimens were mounted for the Museum.

A.

Local Diseases.—In several cases associated with a lobar pneumonia there was a diplococcic infection of the meninges. The cerebellar abscess noted arose from an acute otitis media.

B.

Pericarditis.—A purulent pericarditis was occasionally observed with an Empyema or Septicæmia. A somewhat rare condition was noted in two instances; the pericardium was adherent to the surface of the heart and scattered throughout the left ventricular wall were numerous gummata.

Aneurism of the aortic arch in any part of its length appears to be fairly common and rupture occurred in a few cases either into the pericardium trachea or pleura.

C.

There is nothing to add to former reports on the prevalence of Phthisis. As in Malaria many are admitted into Hospital in the last stages of the disease and die within a short time after admission, showing on autopsy the whole pulmonary substance almost disintegrated by vomicae or caseous masses. As the average Chinese

coolie hawks and spits freely either in the house or in the open air it is readily estimated what proportion acquire the disease by inhalation as the milk-borne theory cannot be supported in Singapore. Lobar pneumonia with its complications or sequelæ retains its high percentage. It appears to be more frequent relatively amongst the Tamils admitted than amongst the Chinese, though many other factors have to be considered before one is able to demonstrate that the case incidence is higher in the former than in the latter. In some cases an associated empyema had persisted for a considerable time as the lung had collapsed and was bound down around the root by dense adhesions.

D.

Under this section some remarks may be offered on the presence of biliary calculi. It has been noted that such are frequently found in the gall bladder in cases where the liver showed intense malarial pigmentation. In individuals dying from Malaria the gall bladder is usually found distended with dark-green, thick inspissated bile—the contents often having a granular feel on emptying the sac. It seems probable, therefore, that this condition of the bile may be conducive to the formation of Calculi. A marked dilatation of the bile ducts in one or other lobe, filled with calculi and granular debris, was observed in three cases where the common bile duct was blocked by a calculus, in two instances at the opening into the duodenum. One case of Hepatic cirrhosis produced by the *Schistosomum Japonicum* was observed, several others were syphilitic in nature.

In one instance a large yellowish deposit caused by some streptothrix was noted but as, unfortunately, the specimen had been fixed before a bacteriological examination could be made, it was impossible to determine what variety of *Actinomyces* was present.

Apart from the perforation of an enteric or dysenteric ulcer, in several cases suppurative peritonitis was produced by the rupture of a gastric or duodenal ulcer, gangrenous appendix, strangulated hernia, abscess of liver, stab wounds, etc.

E.

Comment is called for only on one point, *i.e.*, the frequency with which one observes calculi either in the pelvis of the kidney or impacted in the ureter producing a pyelonephritis or hydronephrosis. In two or three instances one has noted numerous calculi in the calices, assuming the shape of these chambers, associated also with a marked sclerosis of the renal substance with dense fibrous thickening of the capsule and perirenal tissues. One marked case of Renal phthisis was seen where the destruction of the lining membranes had extended almost to the urethral opening.

F. G. H.

Require no amplification.

K.

Attention may be drawn to the large number who died of a septic or sapræmic condition, due in many instances to extensive sloughing ulcers on the lower limbs. Occasionally the destruction of the tissues about the region of the ankle joint or foot is so great that the vessels and tendons are distinctly dissected out and covered over by or imbedded in black gangrenous material.

Several cases showed small multiple abscesses in thighs, upper arm and lower part of anterior abdominal wall due to the use of a dirty needle in the administration of morphine.

Only one case of kala-azar occurred; the patient was a Tamil coolie who had recently immigrated from India.

Intestinal Parasites.

<i>Ascaris Lumbricoides</i>	...	...	...	...	513
<i>Trichocephalus dispar</i>	...	...	...	...	61
<i>Anchylostomum duodenale</i>	...	...	...	...	245
<i>Tænia Saginata</i>	...	...	...	...	1

Anchylostomiasis.—Though this parasite is observed in a large number of cases, in only a few is the number so great that the condition may be termed pathological and death directly attributable to the infection.

The tape-worm found occurred in a Cantonese coolie.

Distomiasis.—The Trimatode, *Clonorchis sinensis* was observed in 80 instances, occasionally occurring in enormous numbers and producing a marked dilatation of the bile ducts. As noted previously the hosts of these parasites are mainly Teochews or Cantonese.

Staff.

Mr. GNANAPRAKASAM has recently been appointed Laboratory Assistant in place of Mr. S. FERNANDEZ, resigned.

Dr. KEITH has mounted and catalogued a large number of specimens, illustrating varied pathological conditions, for the Medical School. As for the latter six months of the year there was no laboratory save a bench at the Medical School, it was impossible to attempt anything beyond routine work.

In addition to performing the ordinary duties at the Tan Tock Seng Mortuary Mr. S. N. BARDHAM has examined over a thousand specimens from the wards, including 620 samples of sputa for T. B. and 300 samples of fæces for the demonstration of ova. The work of this officer is to be commended.

Naturally the time occupied in the personal examination of so many specimens, in the demonstration of autopsies and in the preparation of lectures, etc., is so great that I humbly beg to reiterate that it is impossible to perform any research without some further qualified assistance. I trust that the Government will place the services of two Assistant-Surgeons who will obtain the local qualification in 1910 at my disposal for their training as Assistants in the Department.

APPENDIX L.

Annual Report on the Medical Department, Labuan, for the Year 1908.

REPORT BY DR. T. C. CLEVERTON, *Medical Officer*.

Population.—The population was estimated at 8,245 on 31st December, a decrease of 41 as compared with the estimated population on 31st December, 1907. During 1907 the population was estimated to have decreased by 31.

During 1906 the deaths exceeded the births by 45. Thus it will be seen that the death-rate has exceeded the birth-rate for each year during the last three years. In estimating the population of the Island the number of immigrants and emigrants are not considered as no records are obtainable, I understand. The population is, therefore, estimated upon the number of births and deaths as reported to the Registrar of Births and Deaths.

It is my conviction that these figures are not to be relied upon as being absolutely accurate however. Many of the natives fail to report, especially the Kadayans, who live for the most part, on the western coast of the Island, at a distance of from 4 to 6 miles from the office of the Registrar of Births and Deaths. There are no Penghulus appointed, as yet, at any of the villages.

During 1908, 213 deaths and 172 births were registered. The birth and death-rates were both highest during the second and third quarters of the year.

The mortality under one year of age was 67. This is nearly 39 per cent of the total birth-rate, and is just over 31 per cent of the total death-rate.

The large infant mortality is due to the faulty upbringing of the children: the parents do not recognize that fresh air and pure milk are factors of the greatest importance in regard to the health of their off spring. Diarrhœa and Vomiting, and Broncho-pneumonia figure largely among their diseases, and this condition of affairs is not likely to improve until the natives have been educated up to a better household and personal hygiene.

Public Health.—There have been no epidemic of contagious diseases.

Port Health Work.—Steamers arriving from infected ports were inspected: all were granted pratique. Vessels and boats of all kinds arriving from British North Borneo Ports from the 1st to the 17th June inclusive were inspected before being

permitted to enter Victoria Harbour. During that time these Ports were declared to be infected with Small-pox. In no case was a vessel or boat detained after inspection.

General Sanitary Arrangements.—Improvements are becoming manifest in the drainage of Victoria: otherwise matters are much the same as in the previous year.

Malaria.—This appears to show an improvement when compared with 1907. The number of cases treated in Hospital for this in 1907 was given as 52, the number in 1908 was 32. In 1908, however, a number of such cases were treated as out-patients.

Beri-beri.—Seventeen cases were treated in Hospital during 1908, as against 12 in 1907.

Ankylostomiasis.—Two cases were treated in Hospital during 1908, as against 4 in 1907.

Venereal Diseases.—Very few cases presented themselves at Hospital for treatment.

Small-pox.—One case occurred at Coal Point. The patient was about 15 and had been vaccinated when quite a child. The type of the disease was Varioloid. The case was isolated in the old hospital which I use at present for any isolation cases, and for women. A "contact" was brought down and isolated in another part of this building. The house in which these people lived was burnt to the ground and other stringent disinfectant measures were adopted. The contact was vaccinated soon after admission and the vaccination was successful, this case did not develop small-pox and there were no further cases. The disease was probably introduced from British North Borneo.

Vaccination.—In all 290 vaccinations were done. Of these, all done by the Medical Officer were primary. A few secondary vaccinations were done by a private medical practitioner, as also were many primary ones. His cases are included in the 290 mentioned above.

There were 65 unsuccessful vaccinations, and 39 who failed to bring any report.

One consignment of lymph was poor and failed to produce any result. All the other consignments were good.

The failures which were recorded seemed to be due to the carelessness of the parents rather than to the quality of the lymph, except in one consignment noted above in which every case failed to show any result.

Meteorological.—During the first three months of the year the wind appears to have blown with equal impartiality from the North East and South West.

During the last nine months of the year the wind blew steadily from the South West.

There appears to be a tendency for less rain to fall during the first three months of the year, but the difference was by no means marked during the year under review. The total annual rainfall was 165.07 inches, the wettest month was September, 18.25 inches having fallen during that month. The greatest rainfall during the 24 hours occurred on the 14th May, when 5.11 inches fell.

The highest temperature recorded during the year was 93° F. and the lowest was 72° Fahrenheit.

The Hospital.—The total number of patients treated during 1908 was 167. Of these, 7 remained over from the previous year, making the total number of admissions 160. At the end of the year 7 remained in Hospital. The daily average sick was 6.8.

The number of deaths which occurred in Hospital was 22, 6 of these died within 8 hours of admission. The percentage of deaths to the number treated in Hospital was 13.17, in 1907 the percentage was 13.11, in 1906 it was 10.36.

This high percentage of deaths is most unsatisfactory, but it must be borne in mind that paupers are included amongst these deaths. Also during the year 1908 a greater number of serious accidents have occurred in the coal mines at Coal Point than during the former two years, and four of these cases succumbed to their injuries in Hospital.

The chief causes of deaths in Hospital were:—Beri-beri 6, Injuries 4, Malaria and its effects 3, Pulmonary Tuberculosis 2, Dysentery 2, and General Debility 2.

The Staff.—Medical Officer—Dr. R. E. ADAMSON remained in office up to 11th March, when Mr. CANAGASABY acted in his stead.

I arrived on the 8th of April, and immediately took up my duties in this capacity.

The Police.—Members of this Force are continually presenting themselves at Hospital complaining of "Fever."

In many cases they are true sufferers from Malaria, but in other cases I have been unable to find any disease in them. They are undoubtedly by far the greatest sufferers from Malaria than any other class of Government Servants, even when their relatively larger numbers to any other such class be borne in mind.

In addition to the great number who presented themselves complaining of "Fever," there were a small number of cases of Bronchitis, Dyspepsia and Gonorrhœa, and a large number suffering from minor injuries and septic sores.

The general health of the Force is good, except for Malaria, which, as I have already pointed out, is more prevalent than it should be.

The Police moved into their new Barracks about the end of the year.

The Gaol and Prisoners.—The site of the old Gaol was unsatisfactory. The new site is good, and the building itself is an improved one, but it most unfortunately leaks badly.

The general health of the prisoners was fair.

APPENDIX M.

Deaths registered in the Straits Settlements from different Causes in 1908.

Settlement.	Convulsion.	Bronchitis.	Malarial Fever.	Remittent Fever.	Typhoid Fever.	Fever not specified.	Dysentery.	Diarrhoea.	Cholera.	Bubonic Plague.	Small-pox.	Beri-beri.	Heart.	Phtisis.	Head.	Injuries.	Debility and Age.	Anæmia.	Pneumonia.	Bright's Disease.	Dropsy.	Drowning.	Hanging.	Syphilis.	Inanit on.	Tetanus.	Child-birth.	Peritonitis.	Gastritis.	Enteritis.	Rheumatism.	Cirrhosis of Liver.	Diabetes Mellitus.	Other Causes.	Unknown.	All Causes.	
Singapore	886	544	2,100	...	117	822	723	336	*155	† 14	† 14	1,117	322	1,573	8	68	311	79	726	150	8	59	33	100	87	98	21	72	59	280	20	71	5	1,666	82	12,726	
Penang	280	213	777	43	35	445	314	133	a 2	...	69	534	65	917	25	44	359	102	307	61	20	10	17	50	8	147	72	9	7	190	11	51	6	c 435	10	5,738	
Province Wellesley.	901	2	15	...	...	1,288	156	79	57	...	...	20	12	278	3	18	380	34	14	11	143	16	14	...	...	...	77	...	...	6	5	7	...	79	12	3,627
Dindings	40	1	...	...	...	130	4	4	...	...	...	2	...	5	...	1	19	1	1	...	13	1	...	...	...	...	1	...	...	...	...	...	...	28	...	251
Malacca	1,260	26	170	...	...	1,939	197	86	...	...	...	227	10	215	5	6	276	6	9	11	...	10	3	9	...	...	72	...	...	...	...	12	...	d 141	9	4,699
Total. ...	3,367	786	3,062	43	152	4,624	1,394	638	214	14	23	1,900	409	2,988	41	137	1,375	222	1,057	233	184	96	67	159	95	245	243	81	66	476	36	141	11	2,349	1	3	27,041

* 34 Imported. † 2 Imported. ‡ 4 Imported.

a Imported. b Seven cases imported.

c These include the following :—

Paralysis 16. Phagedœma 24, Rupture of Spleen 7, Leprosy 111, Pleurisy 7, Measles 1, Choleraic Diarrhoea 1, Jaundice 26, Opium Poisoning 3, Intestinal Obstruction 4, Septicæmia 13, Strangulated Hernia 4, Sprue 5, Poison (Strychnine) 1, Immaturity at birth 51, Privation 8, Pericarditis 4, Ankylostomiasis 13, Other Causes 136.

d These include the following :—

Aneurism 2, Albuminuria 15, Abscess 3. Asthma 1, Apoplexy 1, Acute Myelitis 1, Alcoholism 1, Ankylostomiasis 9, Asphyxia Neonatorum 1, Broncho Pneumonia 1, Cerebral Embolism 1, Croup 1, Cancrum Oris 1, Cardiac Failure 1, Cerebral Hæmorrhage 3, Cancer of breast 1, Exhaustion after birth 2, Fracture of spine 1, Gangrene of foot 2, Hemiplegia 6, Inflammation of bowels 1, Neuritis 11, Leprosy 2, Nephritis 11, Phagedœma 14, Paralysis 16, Pleurisy 2, Premature Birth 2, Paraplegia 1, Pycelitis 1, Pyonephrosis 1, Run over by a Cart 1, Rupture of Spleen 2, Scalds 3, Sarcoma 3, Poison 1, Snake bite 3, Spinal Meningitis 1, Symphædenoma 1, Sæpremia 2, Shock due from stab wound 1, Shock due to fall from a tree 6, Uræmia 1.

Singapore.

Return of the Statistics of Population for the Year 1908.

					Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1908					4,295	4,548	36,145	203,251	19,242	3,579	271,060
„ Births during the year 1908					132	153	1,577	3,732	398	92	6,084
„ Deaths „ 1908					71	129	1,790	9,613	967	156	12,726
„ Immigrants „ 1908					} No data available.						
„ Emigrants „ 1908											
Number of inhabitants in 1907					4,227	4,486	36,136	197,324	19,040	3,437	264,650
Increase					68	62	9	5,927	202	142	6,410
Decrease ... ..					...	...	...	...	...	...	...

Meteorological Return for the Year 1908.

				TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
				Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.			Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
				°F	°F	°F	°F	°F	°F	Inches.	%		Miles.	
January	156.4	...	89.3	73.2	16.1	81.2	4.27	77.4	Not recorded.	Not recorded.	
February	...	...	...	150.6	...	88.3	72.6	15.7	80.4	5.92	76.9
March	...	...	...	156.2	...	89.1	73.1	16.0	81.1	5.42	77.5
April	...	...	...	153.6	67.0	89.2	75.0	14.2	82.1	8.22	78.6
May	...	...	...	147.2	69.0	89.3	76.5	12.8	82.9	6.54	83.9
June	...	...	...	144.9	69.5	87.6	73.8	13.8	80.7	5.24	78.1
July	...	...	...	147.5	67.5	84.2	73.6	10.6	78.8	6.24	75.7
August	...	...	...	145.1	68.0	87.5	73.6	13.9	80.5	4.07	77.3
September	...	...	...	148.3	69.0	87.3	74.2	13.1	80.7	5.08	78.3
October	...	...	...	152.6	69.0	87.4	74.1	13.3	80.7	7.76	77.5
November	...	...	...	147.1	69.0	86.1	73.3	12.8	79.7	7.20	76.6
December	...	...	...	151.6	68.0	86.4	73.4	13.0	79.9	19.48	76.9
Mean	150.1	...	87.6	73.9	13.7	80.7	Total. 85.44	77.9	

SINGAPORE.

*Return of Diseases and Deaths in 1908 at the following Institutions:—
General Hospital, Prison, St. John's Island, Tan Tock Seng's Hospital, Quarantine
Camp, Leper, Beri-beri and Lock Hospitals and Lunatic Asylum.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES						
Beri-beri	287	1,339	160	1,626	206	
Cerebro spinal fever	...	1	1	1	...	
Chicken-pox	...	14	...	14	...	
Cholera	...	83	64	83	1	
Cow-pox	...	1	...	1	1	
Dengue	...	27	...	27	...	
Diphtheria	...	4	2	4	...	
Dysentery	11	782	409	793	21	
Endocarditis, infective	...	2	2	2	...	
Enteric Fever	13	236	94	249	11	
Erysipelas	1	10	...	11	1	
Gonorrhœa	19	285	1	304	13	
Influenza	...	8	...	8	...	
Leprosy	20	54	9	74	32	
Malaria	...	...	...	...	...
Tertian	...	596	22	596	11	
Quartan	...	42	2	42	...	
Æstivo Autumnal	12	1,267	144	1,279	54	
Chronic	3	125	8	128	1	
Not differentiated	48	724	193	772	17	
Measles	...	19	...	19	1	
Mumps	...	6	...	6	2	
Osteo Myelitis	...	2	...	2	...	
Phagedœna	1	37	9	38	6	
Plague	...	9	9	9	...	
Pneumonia	3	165	88	168	5	
Pyæmia	1	4	3	5	...	
Pyrexia	4	436	4	440	3	
Rheumatic Fever	4	71	...	75	6	
Septicæmia	...	33	30	33	1	
Small-pox	3	79	10	82	1	
Syphilis, Primary	4	182	1	186	8	
Secondary	67	397	16	464	52	
Tetanus	1	10	6	11	...	
Tuberculosis	32	169	87	201	14	
Yaws	...	2	...	2	...	
INTOXICATIONS.						
Alcohol	...	57	1	57	...	
Mercury	...	1	...	1	1	
Morphinism	...	10	...	10	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRE- CEDING GROUPS.						
Anæmia	21	242	15	263	9	
„ pernicious	...	1	...	1	...	
Diabetes	...	6	...	6	...	
Exophthalmic Goitre	1	2	1	3	...	
Gout	...	1	...	1	...	
Leucocythæmia	2	1	1	3	...	
Lymphadenoma	...	1	1	1	...	
Osteo Arthritis	...	2	...	2	...	
Scurvy	...	1	...	1	...	
CERTAIN MORBID CONDITIONS INCIDENT TO VARIOUS PARTS.						
Malformations	...	5	2	5	...	
New Growth	...	...	...	...	...
Non-malignant...	1	18	2	19	3	
Malignant	5	38	25	43	1	
Cyst	...	7	...	7	...	
Carried forward...	564	7,614	1,422	8,178	482	

Return of Diseases and Deaths in 1908 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	564	7,614	1,422	8,178	482	
DISEASES OF THE NERVOUS SYSTEM.						
DISEASES OF THE NERVES.						
Neuritis ...	2	24	1	26	2	
DISEASES OF THE SPINAL CORD AND MEMBRANES.						
Meningitis ...	...	...	...	...	...
Myelitis ...	...	1	1	1	...	
Primary Lateral Sclerosis ...	8	10	2	18	5	
Locomotor Ataxia ...	2	3	...	5	...	
Insular Sclerosis ...	...	1	...	1	...	
DISEASES OF THE BRAIN AND MEMBRANES.						
Meningitis ...	...	15	12	15	...	
Hæmorrhage ...	...	7	5	7	...	
Abscess ...	...	6	6	6	...	
Hydrocephalus ...	...	3	1	3	1	
NERVOUS DISORDERS.						
Paraplegia ...	1	3	1	4	3	
Hemiplegia ...	11	37	9	48	8	
Monoplegia ...	...	1	...	1	1	
Chorea ...	...	1	...	1	1	
Epilepsy ...	...	4	1	4	8	
Headache ...	...	6	...	6	1	
Neuralgia ...	...	2	...	2	...	
Hysteria ...	...	3	...	3	...	
Neurasthenia ...	...	10	...	10	1	
Other Diseases ...	...	3	1	3	...	
MENTAL DISEASES.						
Idiocy ...	2	8	1	10	11	
Mania, Acute ...	173	131	37	304	40	
Recurrent ...	...	9	1	9	6	
Chronic ...	...	1	2	1	30	
Alcoholic ...	...	2	...	2	...	
Senile ...	10	1	2	11	4	
Melancholia, Acute ...	1	21	6	22	5	
Chronic ...	43	...	...	43	10	
Delusional Insanity ...	10	12	...	22	5	
General Paralysis of Insane... 2	2	1	...	3	...	
Dementia, Secondary ...	59	33	14	92	211	
Organic ...	...	1	2	1	...	
Primary ...	...	4	1	4	9	
DISEASES OF THE EYE.						
Ophthalmia ...	...	105	...	105	8	
Purulent ...	...	55	...	55	4	
Granular ...	...	16	...	16	...	
Cornea Inflammation ...	1	1	...	2	2	
Ulcer ...	9	30	...	39	8	
Opacity ...	9	7	...	16	7	
Acquired deformities	7	12	...	19	7	
Iritis ...	1	11	...	12	...	
Glaucoma ...	...	2	...	2	1	
Optic Neuritis ...	...	1	...	1	...	
Cataract ...	5	10	...	15	6	
Panophthalmitis ...	14	11	...	25	9	
Refraction errors ...	...	3	...	3	1	
Blepharitis ...	...	1	...	1	...	
Entropion ...	...	2	...	2	...	
Other Eye Diseases ...	...	2	...	2	...	
<i>Carried forward...</i>	934	8,247	1,528	9,181	897	

Return of Diseases and Deaths in 1908 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	934	8,247	1,528	9,181	897	
DISEASES OF THE EAR.						
Hæmatoma Auricle ...	..	1	...	1	...	
External Ear, Inflammation. ...	...	3	...	3	...	
Middle Ear " ...	1	2	...	3	...	
Otitis Media ...	...	15	...	15	...	
DISEASES OF THE NOSE.						
Coryza ...	...	2	...	2	...	
Naso-pharyngeal Catarrh ...	...	1	...	1	...	
DISEASES OF THE CIRCULATORY SYSTEM						
Pericarditis ...	...	10	6	10	2	
Endocarditis ...	...	3	3	3	...	
Valvular Disease ...	4	71	23	75	4	
Myocarditis ...	...	2	2	2	...	
Dilatation of Heart ...	...	1	1	1	...	
Syncope ...	1	2	3	3	...	
Disordered Action of Heart ...	1	2	...	3	...	
Aneurysm ...	1	10	10	11	...	
Phlebitis ...	...	1	...	1	...	
Thrombosis ...	...	4	4	4	...	
Varix ...	1	6	...	7	...	
Other Diseases ...	4	5	1	9	...	
DISEASES OF THE RESPIRATORY SYSTEM						
Asthma ...	...	34	...	34	1	
Laryngitis ...	...	3	...	3	...	
Bronchitis ...	11	308	14	319	8	
Hæmoptysis ...	...	3	...	3	...	
Broncho-pneumonia ...	1	21	12	22	...	
Phthisis ...	...	334	237	334	20	
Pleurisy ...	5	29	6	34	...	
Empyema ...	...	24	19	24	3	
Hæmothorax ...	1	...	...	1	...	
Emphysema ...	1	...	...	1	...	
Other Diseases ...	1	13	10	14	1	
DISEASES OF THE DIGESTIVE SYSTEM.						
Stomatitis ...	...	9	...	9	...	
Ulceration of Mouth ...	...	3	...	3	...	
Toothache ...	...	2	...	2	...	
Caries of Tooth ...	...	1	...	1	...	
Ulceration of Tongue ...	...	1	...	1	...	
Sorethroat ...	...	5	...	5	1	
Tonsillitis ...	...	13	...	13	...	
Pharyngitis ...	...	7	...	7	...	
Gastritis ...	...	23	2	23	...	
Ulceration, Stomach ...	1	13	6	14	1	
Dyspepsia ...	4	98	...	102	3	
Other Diseases of Stomach..	3	3	1	6	...	
Enteritis ...	8	142	23	150	8	
Appendicitis ...	3	17	3	20	2	
Colitis ...	3	32	4	35	2	
Ulcer Duodenum ...	...	1	...	1	...	
Intestines ...	...	2	2	2	...	
Hernia ...	1	18	3	19	4	
Strangulated ...	...	1	...	1	...	
Obstruction, Intestines ...	...	3	1	3	...	
Diarrhoea ...	...	325	16	325	16	
Constipation ...	9	54	...	63	...	
<i>Carried forward ...</i>	999	9 930	1,940	10,929	973	

Return of Diseases and Deaths in 1908 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases. Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	999	9,930	1,940	10,929	973	
DISEASES OF THE DIGESTIVE SYSTEM.— <i>Continued.</i>						
Colic ...	2	14	...	16	...	
Ischio Rectal Abscess ...	...	4	...	4	1	
Fissure of Anus ...	...	7	...	7	1	
Fistula in Ano ...	...	40	...	40	2	
Piles ...	...	22	...	22	...	
collapse of Rectum ...	1	...	...	1	...	
Other Rectal Diseases ...	...	11	2	11	...	
Liver, Inflammation ...	...	5	...	5	...	
Abscess ...	1	20	10	21	...	
Chronic Inflammation. ...	11	74	28	85	...	
Perihepatitis ...	...	6	3	6	1	
Congestion ...	...	16	...	16	...	
Jaundice ...	...	4	1	4	...	
Gall Stones ...	...	1	...	1	1	
Peritoneum, Inflammation ...	...	29	28	29	4	
Ascites ...	...	10	...	10	...	
DISEASES OF THE LYMPHATIC SYSTEM.						
Spleen, Inflammation ...	...	7	...	7	...	
Abscess ...	...	1	...	1	...	
Rupture ...	...	4	4	4	...	
Glands, Inflammation ...	...	35	...	35	4	
Suppuration ...	5	51	...	56	5	
Mechanical Affections ...	...	4	...	4	1	
DISEASES OF THE URINARY SYSTEM						
Nephritis, Acute ...	1	10	5	11	...	
Chronic ...	10	114	62	124	9	
Pyelitis ...	...	1	1	1	...	
Renal Colic ...	...	4	...	4	...	
Cystitis ...	...	9	4	9	1	
Calculus ...	...	4	...	4	...	
Urine, Retention of ...	...	3	...	3	...	
Incontinence of ...	...	1	...	1	...	
DISEASES OF THE GENERATIVE SYSTEM, (MALE ORGANS.)						
Stricture ...	2	14	1	16	...	
Urethral Fistula ...	...	6	...	6	...	
Extravasation of Urine ...	...	3	1	3	...	
Impacted Calculus ...	...	1	...	1	...	
Prostate Hypertrophy ...	...	1	...	1	...	
Phimosis ...	...	13	...	13	...	
Paraphimosis ...	...	3	...	3	...	
Ulcer of Penis ...	5	1	...	6	...	
Soft Chancre ...	11	183	...	194	6	
Scrotum, Abscess ...	...	7	...	7	2	
Sloughing ...	...	15	1	15	1	
Hæmatocele ...	2	4	...	6	2	
Varicocele ...	...	1	...	1	...	
Epididymitis ...	...	3	...	3	...	
Hydrocele ...	3	22	...	25	1	
Orchitis ...	...	16	...	16	...	
Abscess Testis ...	...	1	...	1	...	
Hernia ...	2	9	...	11	...	
Perineal Abscess ...	...	4	...	4	...	
<i>Carried forward...</i>	1,055	10,748	2,091	11,803	1,015	

Return of Diseases and Deaths in 1908 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	1,055	10,748	2,091	11,803	1,015	
DISEASES OF THE GENERATIVE SYSTEM. —Continued.						
(FEMALE ORGANS.)						
Metritis ...	...	1	...	1	...	
Endometritis ...	...	6	...	6	...	
Erosion of Ceroix ...	...	9	...	9	...	
Hyperplasia ...	...	2	...	2	...	
Retroflexion ...	...	1	...	1	...	
Vulva, Inflammation ...	...	2	...	2	1	
Abscess ...	...	1	...	1	1	
Ulcer ...	...	9	...	9	1	
Soft Chancre ...	...	19	...	19	2	
Fistula Vesico, Vaginal ...	...	1	...	1	...	
Other Diseases ...	8	2	...	10	...	
Anienorrhœa ...	1	...	...	1	...	
Dysmenorrhœa ...	...	1	...	1	...	
Menorrhagia ...	...	1	...	1	...	
AFFECTIONS CONNECTED WITH PREGNANCY.						
Abortion ...	...	3	...	3	...	
Pregnancy ...	...	17	1	17	3	
DISEASES OF THE FEMALE BREAST.						
Mastitis ...	...	1	1	1	...	
DISEASES OF THE ORGANS OF LOCOMOTION.						
Periostitis ...	...	9	...	9	2	
Caries ...	2	11	3	13	2	
Necrosis ...	2	6	...	8	2	
Arthritis ...	...	37	1	37	1	
Synovitis ...	2	21	...	23	4	
Ankylosis ...	...	2	...	2	...	
Spondylitis ...	...	1	...	1	...	
Caries of Spine ...	...	3	...	3	2	
Myalgia ...	6	23	...	34	2	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	4	50	7	54	3	
Abscess ...	17	204	7	221	17	
Edema ...	...	1	...	1	...	
Gangrene ...	2	25	14	27	4	
Elephantiasis ...	1	6	1	7	...	
Other Diseases ...	1	...	...	1	...	
DISEASES OF THE SKIN.						
Urticaria ...	...	1	...	1	...	
Eczema ...	8	52	...	60	2	
Impetigo ...	...	1	...	1	...	
Boil ...	...	49	...	49	1	
Carbuncle ...	...	12	...	12	...	
Herpes ...	...	2	...	2	...	
Shingles ...	...	1	...	1	...	
Pemphigus ...	1	1	...	2	...	
Psoriasis ...	...	16	...	16	...	
Dermatitis exfoliata ...	...	1	...	1	...	
<i>Carried forward ...</i>	1,110	11,364	2,126	12,474	1,065	

Return of Diseases and Deaths in 1908 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	1,110	11,364	2,126	12,474	1,065	
DISEASES OF THE SKIN. —Continued.						
Wart ...	...	1	...	1	1	
Acne ...	...	1	...	1	1	
Whitlow ...	...	6	...	6	...	
Ulcer ...	54	602	...	656	55	
Other Diseases ...	2	15	1	17	...	
INJURIES ...	35	1,228	59	1,263	43	
POISONS.						
Mercury ...	...	2	1	2	...	
Alcohol ...	...	1	1	1	...	
Belladonna ...	...	1	...	1	...	
Opium ...	...	3	2	3	...	
Others ...	...	6	4	6	...	
PARASITES.						
Round Worm ...	1	3	...	4	...	
Tape-worm ...	...	3	...	3	...	
Ankylostoma Duodenale ...	2	39	15	41	4	
Filiariasis ...	...	1	...	1	...	
Scabies ...	4	103	...	107	...	
Ringworm ...	...	13	...	13	5	
Dhobi Itch ...	...	5	...	5	...	
Others ...	...	1	...	1	...	
OBSERVATIONS. ...	4	221	...	225	3	
NO DISCOVERABLE DISEASE ...	3	159	...	162	1	
TOTAL ...	(a) 1,215	13,778	2,209	14,993	1,178	
OPERATIONS.						
Excision of Tumours, Non- Malignant ...	...	1	...	...	...
Enucleation of Sebaceous Cyst ...	...	2	...	...	...
Incision of Abscesses ...	...	25	...	...	...
„ Ischio Rectal Abscess ...	...	11	...	...	...
Removal of Foreign Body ...	...	1	...	...	...
Excision of Varicose Veins. Cut Throat ...	...	1	...	...	...
Ligature of Artery (Anti- Tibial for Hæmorrhage)... Excision of Lymphatic Glands Multiple Incisions for Cel- lulitis ...	...	3	...	...	...
Curettage Ulcers ...	...	1	...	...	...
Incision Osteomyelitis of Thigh ...	...	2	...	...	...
Compound Fracture ...	...	2	...	...	...
Ununited Fracture of Femur Removal of Sequestra ...	...	1	...	...	...
Setting Dislocation ...	...	7	...	...	...
Breaking down Adhesions ...	...	4	...	...	...
Knee Joint Incised ...	...	2	...	...	...
Hip „ ...	...	3	...	...	...
„ „ ...	...	2	...	...	...
<i>Carried forward ...</i>	...	93	...	...	...

(a) 113 being Beri-beri patients of Pasir Panjang Hospital were left out in 1907.

Return of Diseases and Deaths in 1908 at the Singapore Hospitals.—Concluded.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	...	93	...	...	...
OPERATIONS.— <i>Contd.</i>						
Amputations	26	...	...	...
Trephining Skull	13	...	...	...
Pterygium	2	...	...	...
Cataract	1	...	...	...
Excision of Eyeball	1	...	...	...
Tracheotomy	2	...	...	...
Empyæma with resection of rib	2	...	...	...
Laparotomy for suture of In- testine	3	...	...	...
Laparotomy for Exploratory. " Pancreatic Cyst.	1	...	...	...
Excision of Appendix	2	...	...	...
Hernia, Radical cure (Stran- gulated)	4	...	...	...
Hernia, Radical cure (Redu- cible)	4	...	...	...
Liver, Abscess	7	...	...	...
" (Exploration)	12	...	...	...
Hare lip	3	...	...	...
Imperforate Anus	1	...	...	...
Fistula in Ano	2	...	...	...
Hæmorrhoids	14	...	...	...
Supra public Cystotomy (Calculus of Bladder)	12	...	...	...
Impacted Calculus of Urethra	4	...	...	...
Hydrocele of Tunica Vagi- nalis (Radical cure)	4	...	...	...
Hydrocele of Spermatic cord	6	...	...	...
Castration for Hæmatocele. " Sarcoma of testis	1	...	...	...
Epididymis Scraped, Tubercle	1	...	...	...
Ovariectomy	3	...	...	...
Curretting Uterus	3	...	...	...
Cæsarian Section	1	...	...	...
TOTAL	230	...	...	...

LABUAN.

Return of the Statistics of Population for the Year 1908.

—				Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1907 ...				Records	unreliable.		...	...	...	8,286
,, Births during the year 1908				1	2	113	51	2	3	172
,, Deaths ,, ,, 1908				0	2	130	69	2	10	213
,, Immigrants ,, ,, 1908				} No records obtainable.						
,, Emigrants ,, ,, 1908										
Number of inhabitants in 1908 ...				...	...	...	...	...	...	8,245
Increase				1	...	...	...	...	...	...
or										
Decrease ... ..				...	...	17	18	...	7	41

Meteorological Return for the Year 1908.

			TEMPERATURE.				RAINFALL.		WINDS.		REMARKS.		
			Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.		General Direction.	Average Force.
			No instruments for recording.	No instruments for recording.	°F	°F	°F	°F	Ins.	%	NE & SW NE & SW NE & SW SW SW SW SW SW SW SW SW	No instruments for recording.	The direction of the wind during the first three months of the year varied equally from the N. E. to S. W.
January			86.19	76.06	10.13	83.77	13.11	74.09			
February			86.06	76.27	9.79	83.43	11.31	75.86			
March			86.38	75.77	10.61	83.92	10.84	70.12			
April			88.00	76.30	11.70	85.13	7.48	69.46			
May			88.00	77.29	10.71	84.53	12.74	67.38			
June			87.03	75.60	11.43	83.78	17.74	70.93			
July			86.96	74.77	12.19	83.52	10.29	68.12			
August			89.54	79.90	9.64	84.31	17.79	68.87			
September			88.50	75.20	13.30	85.04	18.25	69.50			
October			86.67	79.32	7.35	84.85	16.96	71.61			
November			85.83	76.96	8.87	83.38	17.51	78.60			
December	85.32	76.16	9.16	83.56	11.05	80.45					
Total			1,044.48	919.60	124.88	1,009.22	165.07	864.99	
Monthly Average			87.04	76.63	10.406	84.10	1375	72.08	

LABUAN.

Return of Diseases and Deaths in 1908 at Labuan Hospital.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
A. GENERAL.						
Malaria, Intermittent	21	...	21	...	
„ Remittent	5	...	5	...	
„ Pernicious	2	1	2	...	
„ Cachexia	4	2	4	...	
Beri-beri ...	1	16	6	17	2	
Rheumatism	3	...	3	...	
Gonorrhœa	1	...	1	...	
Alcoholic Cirrhosis Liver	3	1	3	...	
Chronic Alcoholism	1	...	1	1	
Shock after Immersion	1	...	1	...	
General Debility	3	2	3	...	
Small-pox	1	...	1	...	
Anæmia	1	...	1	...	
B. LOCAL.						
NERVOUS SYSTEM.						
Acute Mania	1	...	1	...	
Unsound Mind	4	...	4	...	
For Observation (no disease found)	3	...	3	...	
Neuralgia	1	...	1	...	
DIGESTIVE SYSTEM.						
Simple Ulcer of Tongue	1	...	1	...	
Dyspepsia	1	...	1	...	
Gastro Enteritis	3	...	3	...	
Diarrhœa	1	...	1	...	
Dysentery	2	2	2	...	
Colitis	1	...	1	...	
Internal Hæmorrhoids	1	..	1	...	
RESPIRATORY SYSTEM.						
Congestion of Lung	1	1	1	...	
Pneumonia	3	1	3	...	
Pulmonary Tuberculosis	5	2	5	1	
Pleurisy	1	...	1	...	
Empyema	1	...	1	...	
CIRCULATORY SYSTEM.						
Tachycardia	1	...	1	...	
Mitral Stenosis	1	...	1	...	
Mitral Regurgitation ,	1	...	1	1	
RENAL SYSTEM.						
Sub-Acute Nephritis	1	...	1	...	
GENERATIVE ORGANS.						
Phimosis	1	...	1	...	
Hydrocele	2	...	2	...	
Paraphimosis with Ballanitis.	1	...	1	...	
Gonorrhœal Epididymitis	1	..	1	...	
DISEASES OF EYE.						
Panophthalmitis	1	...	1	...	
Iritis (Secondary and Syphili- tic)	1	...	1	...	
Carried forward ...	1	103	18	104	5	

Return of Diseases and Deaths in 1908 at Labuan Hospital—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	1	103	18	104	5	
DISEASES OF SKIN.						
Ulcers ...	2	6	...	8	...	
Dermatitis ...	1	...	...	1	...	
Onychia ...	...	1	...	1	...	
Pustular Eruption (due to Croton oil, ext. application)	...	1	...	1	...	
DISEASES OF BONE.						
Tubercular Caries ...	...	4	...	4	1	
ORGANS OF LOCOMOTION.						
Gonorrhœal Arthritis ...	...	3	...	3	...	
Traumatic „ ...	...	1	...	1	...	
CELLULAR TISSUE.						
Carbuncle ...	...	1	...	1	...	
Abscess ...	...	4	...	4	...	
DISEASES OF GLANDS.						
Simple Adenitis ...	...	1	...	1	...	
Septic „ ...	...	2	...	2	...	
PARASITES.						
Ankylostomiasis ...	2	...	...	2	...	
TUMOURS.						
Malignant (Sarcoma) ...	...	1	...	1	...	Died later at Brooke- ton, Brunei.
LOCAL INJURIES.						
Fractured Femur Simple ...	1	1	...	2	...	
„ Lower Epiphysis	...	1	...	1	...	
Fractured Humerus (Comp. Comminuted) ...	...	1	...	1	...	
Fractured Skull (Base) ...	...	1	1	1	...	
„ Lower Jaw ...	...	1	...	1	...	
„ Tibia Simple ...	...	1	...	1	1	
Shattered Hand and Wrist...	...	1	...	1	...	
Wounds ...	...	12	...	12	...	
Contusions ..	...	7	...	7	...	
GENERAL INJURIES.						
Multiple Fractures ...	...	1	1	1	...	
Extensive Burns ...	...	2	2	2	...	
Contact Small-pox (Isolation)	...	1	...	1	...	
“Swallowed a Leech” ...	...	1	...	1	...	
Malingering ...	..	1	...	1	...	
Total ...	7	160	22	167	7	

List of Operations performed at Labuan Hospital.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
LIST OF OPERATIONS PERFORMED IN 1908 AT LABUAN HOSPITAL.						
Radical Cure Varicose Veins Leg	1	1	1	...	
Empyema, Tapped only	1	0	1	...	
Tubercular Caries, Scraping Bone	2	0	2	...	
Removal of Septic Glands (Groin)	2	0	2	...	
Partial Removal Sarcoma Sterno Mastoid	1	0	1	...	
Amputation through Fore- arm (Shattered Hand and Wrist)	1	0	1	...	
Disarticulation through Knee Joint (Stephen Smith's)	1	1	1	...	
Ligature of Post, Tibial Ar- tery	1	0	1	...	
Total	10	2	10	...	

Note.—In addition to the above several smaller operations were done, such as the removal of bits of Bone, removal of Teeth, Paracentesis, Tapping Hydrocele, Incision of Abscesses, etc., etc.

PENANG.

(INCLUDES DINDINGS.)

Return of the Statistics of Population for the Year 1908.

	Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1908 ...	925	1,813	36,494	78,100	18,231	2,036	137,599
„ Births during the year 1908	30	51	1,451	1,137	434	24	3,127
„ Deaths „ „ 1908	19	50	1,177	3,354	1,336	53	5,989
„ Immigrants „ 1908	} No data available.						
„ Emigrants „ 1908							
Number of inhabitants in 1907 ...	935	1,790	36,615	77,290	18,337	1,987	136,954
Increase ... ..	...	23	...	810	...	49	645
or Decrease	10	...	121	...	106	...	...

Meteorological Return for the Year 1908.

	TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
January	°F 155·3	°F ...	°F 90·7	°F 73·0	°F 17·7	°F 81·8	Inches. 2·40	% 75·8	Not recorded.	Not recorded.	
February	156·3	...	91·3	73·8	17·5	82·5	3·72	76·5			
March	153·2	...	92·0	74·0	18·0	83·0	3·81	77·5			
April	150·8	...	91·9	75·1	16·8	83·5	8·93	78·6			
May	145·5	71·0	90·3	75·0	15·3	82·6	15·53	78·0			
June	147·0	71·0	90·6	74·4	16·2	82·5	10·42	77·1			
July	144·7	69·0	89·9	74·1	15·8	82·0	7·06	77·4			
August	134·7	70·0	90·1	73·4	16·7	81·7	14·66	77·8			
September	137·8	70·0	89·6	73·7	15·9	81·6	25·54	77·3			
October	139·3	62·0	87·5	73·3	14·2	80·4	10·17	77·2			
November	140·9	64·0	85·8	70·4	15·4	78·1	4·23	76·4			
December	149·0	60·0	89·0	73·2	15·8	81·1	4·79	76·3			
Mean	146·2	...	89·8	73·6	16·2	81·7	Total 111·26	77·0			

PENANG.

*Return of Diseases and Deaths in 1908 at the following Institutions:—
General, District, Lock, Criminal Prison, Quarantine Camp, Jelutong, European
Small-pox, Balik Pulau, Leper Hospital, Pulau Jerejak, Lumut Hospitals and Female
Leper Ward, Jelutong.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Actinomycosis	...	1	...	1	...	
Beri-beri	41	289	59	330	52	
Chicken-pox	...	49	...	49	...	
Dengue	...	4	...	4	...	
Dysentery	16	349	124	365	15	
Enteric Fever	1	6	2	7	1	
Erysipelas	...	10	2	10	...	
Gangrene	...	1	...	1	...	
Gonorrhœa	7	98	...	105	5	
" Arthritis	1	7	...	8	1	
" Ophthalmia	11	5	...	16	2	
Influenza	...	2	...	2	...	
Kala-Azar	...	2	1	2	...	
Leprosy	369	188	110	557	385	
Madura foot	...	1	...	1	...	
Mal. Fever Benign Tert	4	388	27	392	9	
" Quartan	9	3	...	12	...	
" Pernicious	...	219	32	219	9	
Mal. Cachexia	5	83	8	88	4	
Mal. Unclassified	3	179	3	182	3	
Measles	...	8	...	8	...	
Mumps	...	2	...	2	...	
Phagedœna	4	48	21	52	3	
Pneumonia	3	77	33	80	5	
Pyæmia	...	1	1	1	...	
Pyrexia	1	169	...	170	1	
Relapsing Fever	...	1	1	1	...	
Sub-acute Rheumatism	27	306	16	333	25	
Septicæmia	...	4	2	4	...	
Small-pox	...	6	2	6	...	
Syphilis, Primary	8	30	...	38	...	
" Secondary	63	524	30	587	56	
" Tertiary	1	3	...	4	...	
Tetanus	...	8	5	8	...	
Tuberculosis	3	34	11	37	2	
INTOXICANTS.						
Alcoholism	...	33	4	33	2	
Mercury	...	1	...	1	...	
Morphia Habit	...	47	4	47	3	
Opium	...	4	...	4	1	
GENERAL DISEASES.						
Anæmia	26	407	114	433	35	
Debility	9	...	...	9	...	
Diabetes	...	1	1	1	...	
Lymphadenoma	...	2	1	2	1	
Rheumatoid Arthritis	2	12	1	14	1	
CERTAIN MORBID CONDI- TIONS INCIDENT TO VARIOUS PARTS.						
New-growth, non-Malignant	1	4	...	...	...
" Malignant	1	20	8	21	...	
Cyst	...	...	...	...	...
DISEASES, NERVOUS SYSTEM.						
Neuritis	1	17	2	18	4	
Multiple Neuritis	1	4	1	5	...	
Myelitis	1	2	...	3	...	
Carried forward...	619	3,659	626	4,278	625	

Return of Diseases and Deaths in 1908 at the Penang Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	619	3,659	626	4,278	625	
DISEASES, NERVOUS SYSTEM.—Continued.						
Hæmatomyelia ...	...	1	1	1	...	
Spastic Paraplegia ...	1	1	...	2	...	
Locomotor Ataxia ...	1	10	4	11	2	
Dissiminated Sclerosis ...	2	1	...	3	...	
Caisson-disease ...	...	1	...	1	...	
Meningitis ...	...	1	1	1	...	
Cerebral Hæmorrhage ...	...	1	1	1	...	
Hæmorrhage ...	...	1	1	1	...	
Paraplegia ...	...	8	3	8	1	
Hemiplegia ...	8	46	12	54	10	
Monoplegia ...	...	2	...	2	...	
Local Paralysis ...	1	6	...	7	...	
Facial Paralysis ...	...	2	...	2	...	
Epilepsy ...	...	4	...	4	1	
Menière's Disease ...	...	1	...	1	...	
Headache ...	...	5	...	5	...	
Local Hyperæsthesia ...	...	3	...	3	...	
Neuralgia ...	1	15	...	16	...	
Neurasthenia ...	...	2	...	2	...	
General Paralysis of the Insane ...	...	1	...	1	...	
Dementia ...	4	10	...	14	4	
DISEASES OF THE EYE.						
Conjunctivitis ...	...	3	...	3	...	
Catarrhal Conjunctivitis ...	1	19	...	20	...	
Purulent „ ...	1	8	...	9	...	
Trachoma ...	7	13	...	20	3	
Pterygium ...	1	...	...	1	...	
Keratitis ...	...	3	...	3	...	
Keratitis Interstitial Pri : ...	...	3	...	3	...	
Corneal Ulcer ...	1	23	...	24	1	
Corneal Opacity ...	5	4	1	9	...	
Staphyloma ...	2	8	...	10	...	
Iritis ...	3	10	...	13	2	
Optic Neuritis ...	...	1	...	1	1	
Optic Atrophy ...	2	1	...	3	...	
Cataract ...	1	6	...	7	...	
Pan-ophthalmitis ...	...	1	...	1	...	
Shrunken Eyeball ...	2	1	...	3	...	
Amaurosis ...	11	10	3	21	...	
Nyctalopia ...	...	1	...	1	...	
Blepharitis ...	...	1	...	1	...	
DISEASES OF THE EAR.						
Otorrhœa ...	...	2	...	2	...	
Inflammation, Acute ...	...	3	...	3	...	
Suppurat : Middle Ear ...	...	3	...	3	...	
Deafness ...	...	2	...	2	...	
DISEASES OF THE NOSE.						
Chr. Inflam. soft parts ...	...	1	...	1	...	
Rhinitis ...	...	1	...	1	...	
Coryza ...	...	3	...	3	...	
Epistaxis ...	1	1	...	2	...	
Inflammation ...	...	2	...	2	...	
Sinus ...	...	...	...	...	...
DISEASES OF CIRCULATORY SYSTEM.						
Pericarditis ...	...	2	2	2	...	
Endocarditis ...	...	1	1	1	...	
<i>Carried forward...</i>	675	3,918	656	4,593	650	

Return of Diseases and Deaths in 1908 at the Penang Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	675	3,918	656	4,593	650	
DISEASES OF CIRCULATORY SYSTEM.— <i>Continued.</i>						
V. D. H. Mitral ...	I	11	6	12	...	
„ Aortic ...	...	2	1	2	...	
Fatty Degeneration Heart ...	...	1	1	1	...	
Dilatation Heart ...	...	10	7	10	...	
Aneurysm ...	...	3	2	3	...	
Tachycardia ...	...	3	...	3	...	
Arterial Sclerosis ...	...	2	...	2	I	
Traumatic Aneurysm ...	...	1	...	1	I	
Phlebitis ...	...	2	...	2	...	
Varix ...	...	1	...	1	...	
Varicose Aneurysm ...	...	2	...	2	...	
DISEASES OF RESPIRATORY SYSTEM.						
Asthma ...	2	32	1	34	...	
Laryngitis ...	...	3	1	3	...	
Bronchitis (Acute & Chr.) ...	5	46	3	51	I	
„ Catarrhal ...	...	2	...	2	...	
Congestion Lungs ...	...	17	...	17	I	
Broncho-Pneumonia ...	...	6	4	6	...	
Gangrene Lungs ...	...	3	2	3	...	
Fibroid Phthisis ...	...	7	2	7	I	
Pneumonic Phthisis ...	...	10	4	10	2	
Phthisis ...	11	253	134	264	24	
Emphysema ...	...	5	...	5	...	
Pleurisy ...	2	21	4	23	I	
Empyema ...	I	2	1	3	...	
Pyo-pneumothorax ...	...	1	1	1	...	
DISEASES, DIGESTIVE SYSTEM.						
Stomatitis ...	...	3	1	3	...	
Necrosis Jaw ...	...	1	...	1	...	
Caries ...	...	2	...	2	...	
Gum-boil ...	...	1	...	1	...	
Supp. c Destruction Alveolar Edges ...	...	1	...	1	...	
Sore-throat ...	...	3	...	3	...	
Ulceration Palate ...	...	1	...	1	...	
Tonsillitis ...	...	6	...	6	...	
Elongated Uvula ...	...	1	...	1	...	
Pharyngitis ...	...	48	...	48	4	
„ Septic ...	3	...	...	3	...	
„ Ulcerative ...	...	5	...	5	I	
Gastritis ...	...	12	...	12	...	
Hæmatemesis ...	...	1	...	1	...	
Dyspepsia ...	2	42	...	44	...	
Anorexia ...	...	2	...	2	...	
Enteritis ...	...	18	4	18	...	
Appendicitis ...	I	...	...	1	...	
Colitis ...	4	13	...	17	...	
Ulcer Caecum ...	...	3	...	3	3	
Sprue ...	I	3	I	4	I	
Hernia Inguinal ...	...	11	...	11	...	
Intestinal Obstruction ...	...	1	1	1	...	
Diarrhœa ...	16	321	96	337	28	
Constipation ...	I	29	1	30	...	
Colic ...	...	19	...	19	I	
Ischio Rectal Abscess ...	...	3	...	3	...	
Ischio Rectal Fistula ...	...	1	...	1	...	
Ulcer Anus ...	...	1	...	1	...	
<i>Carried forward ...</i>	725	4,916	934	5,641	720	

Return of Diseases and Deaths in 1908 at the Penang Hospitals.—Continued

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	725	4,916	934	5,641	720	
DISEASES, DIGESTIVE SYSTEM.— <i>Contd.</i>						
Fistula in Ano ...	...	5	...	5	1	
Recto-vaginal Fistula ...	...	1	...	1	...	
Hæmorrhoids ...	...	12	...	12	1	
Prolapse Ani ...	...	3	1	3	1	
Condyloma Ani ...	...	2	...	2	...	
Hepatitis ...	...	10	...	10	...	
" Suppurative ...	...	4	4	4	...	
Cirrhosis Liver ...	6	58	27	64	6	
Congestion Liver ...	1	3	...	4	...	
Jaundice ...	...	9	1	9	...	
Biliary Colic ...	...	1	...	1	...	
Peritonitis ...	...	5	4	5	...	
Dropsy ...	...	2	1	2	...	
DISEASES OF LYMPHA-TIC SYSTEM.						
Rupture Spleen ...	...	2	2	2	...	
Bubo ...	4	66	...	70	7	
Suppuration Glands ...	4	9	...	13	3	
Lymphangitis ...	...	7	...	7	1	
Elephantiasis ...	1	1	...	2	...	
DISEASES, URINARY SYSTEM.						
Nephritis ...	1	7	1	8	...	
Bright's Disease ...	1	20	12	21	2	
Renal Calculus ...	...	1	1	1	...	
Renal Colic ...	...	1	...	1	...	
Ureteritis ...	...	1	...	1	...	
Cystitis ...	...	4	1	4	...	
Irritability Urethra ...	...	1	...	1	...	
Retention of Urine ...	1	3	1	4	...	
Hæmaturia ...	...	1	...	1	...	
DISEASES, GENERATIVE SYSTEM. (MALE.)						
Urethritis ...	...	1	...	1	...	
Stricture Urethra ...	...	9	...	9	...	
Urethral Fistula ...	...	2	...	2	...	
Extravasation of Urine ...	...	2	2	2	...	
Hypertrophy Prostate ...	...	2	...	2	...	
Phimosis ...	...	11	...	11	...	
Paraphimosis ...	...	1	...	1	...	
Balanitis ...	...	1	...	1	...	
Ulcer Penis ...	1	91	1	92	7	
Gangrene Penis ...	...	1	...	1	...	
Soft Chancre ...	5	59	1	64	2	
Condyloma ...	...	1	...	1	...	
Abscess Scrotum ...	...	2	1	2	...	
Sloughing " ...	...	2	...	2	...	
Abscess Spermatic Cord. ...	...	1	...	1	...	
Hæmatocele ...	...	2	...	2	...	
Hydrocele ...	...	17	...	17	1	
Orchitis ...	...	16	...	16	...	
Epididymitis ...	...	1	...	1	...	
Hernia Testis ...	2	4	...	6	...	
DISEASES, GENERATIVE SYSTEM. (FEMALE.)						
Oophoritis ...	...	3	...	3	1	
Pelvic Cellulitis ...	...	1	...	1	...	
Metritis ...	...	1	...	1	...	
<i>Carried forward ..</i>	752	5,386	995	6,138	753	

Return of Diseases and Deaths in 1908 at the Penang Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	752	5,386	995	6,138	753	
DISEASES, GENERATIVE SYSTEM. (FEMALE.)—Continued.						
Granular Erosion Cervix ...	2	10	...	12	...	
Ulcer Vulva ...	...	1	...	1	1	
Amenorrhœa ...	...	1	...	1	...	
Dysmenorrhœa ...	...	2	...	2	...	
Miscarriage ...	...	2	...	2	...	
Natural Labour ...	...	9	1	9	...	
Tedious Labour ...	1	...	...	1	...	
Premature Birth ...	...	1	...	1	...	
Puerperal Sapræmia ...	...	2	2	2	...	
DISEASES, ORGANS OF LOCOMOTION.						
Periostitis ...	...	1	...	1	...	
Caries ...	3	6	1	9	3	
Necrosis ...	3	11	3	14	2	
Arthritis ...	...	8	...	8	...	
Synovitis Arthritis ...	4	...	2	4	...	
„ Chronic ...	...	14	1	14	...	
Hip Joint Disease ...	...	2	...	2	...	
Ankylosis Knee ...	...	3	...	3	...	
Caries Spine ...	...	11	...	11	...	
Psoas Abscess ...	...	2	...	2	1	
Myositis ...	...	1	...	1	...	
Myalgia ...	1	27	...	28	...	
Lumbago ...	...	3	...	3	...	
Ganglion ...	...	1	...	1	...	
Sinus ...	...	7	...	7	1	
DISEASES, CONNECTIVE TISSUE.						
Cellulitis ...	1	50	11	51	5	
Abscess ...	7	154	3	161	13	
Elephantiasis ...	1	8	1	9	2	
DISEASES OF SKIN.						
Erythema ...	77	566	10	643	72	
Eczema ...	1	25	1	26	1	
Impetigo Contagiosa ...	...	1	...	1	...	
„ Herpetiformis ...	...	1	...	1	...	
Boil ...	...	8	...	8	...	
Carbuncle ...	1	12	2	13	...	
Bed-sore ...	...	1	1	1	...	
Herpes Zoster ...	...	2	...	2	...	
Dermatitis Herpetiformis ...	...	1	...	1	...	
„ Exfoliativa ...	...	1	...	1	...	
Wart ...	...	4	...	4	...	
Corn ...	...	1	...	1	...	
Seborrhœa ...	...	1	...	1	...	
Onychia ...	...	2	...	2	...	
Whitlow ...	...	1	...	1	...	
INJURIES.						
General ...	1	82	16	83	1	
Local ...	19	338	8	357	12	
SURGICAL OPERATIONS						
Circumcision ...	...	1	...	1	...	
<i>Carried forward ...</i>	874	6,771	1,058	7,645	867	

Return of Diseases and Deaths in 1908 at the Penang Hospitals.—Concluded.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	874	6,771	1,058	7,645	867	
POISONS.						
Strychnine ...	...	1	...	1	...	
Morphine ...	...	1	...	1	...	
Datura ...	...	3	...	3	...	
Opium ...	...	2	...	2	...	
Snake ...	...	2	...	2	...	
PARASITES.						
Ringworm ...	...	1	...	1	...	
Itch ...	5	137	...	142	6	
Tinea Imbricata ...	...	9	...	9	3	
„ Circinata ...	...	4	...	4	...	
Ankylostomiasis ...	3	35	12	38	3	
Ascaris Lumbricoides ...	...	14	...	14	1	
Guinea worm ...	...	1	...	1	...	
OBSERVATION ...	4	124	2	128	8	
NO APPRECIABLE DISEASE ...	...	58	...	58	1	
NIL ...	...	16	...	16	...	
TOTAL ...	886	7,179	1,072	8,065	889	

PROVINCE WELLESLEY.

Return of the Statistics of Population for the Year 1908.

—					Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1908 ...					222	326	69,054	28,465	21,589	1,563	121,219
,, Births during the year 1908					2	12	3,207	555	543	9	4,328
,, Deaths „ „ 1908					1	5	1,894	919	793	15	3,627
,, Immigrants „ 1908					} No data available.						
,, Emigrants „ 1908											
Number of inhabitants in 1907 ...					217	320	69,022	28,236	21,185	1,450	120,430
Increase or Decrease					5	6	32	229	404	113	789
				

Meteorological Return for the Year 1908.

—		TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
		Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
		°F	°F	°F	°F	°F	°F	Inches.	o/o			
January ...	...	147·7	68·	95·5	72·5	23·0	84·0	2·99	76·6	Not recorded.	Not recorded.	
February ...	...	148·2	69·	94·6	73·1	21·5	83·8	7·34	76·9			
March ...	...	147·8	70·	95·7	73·5	22·2	84·6	10·18	77·7			
April ...	...	149·8	72·	97·0	74·8	22·2	85·9	6·49	78·7			
May ...	...	150·6	71·5	95·5	74·5	21·0	85·0	6·78	79·5			
June ...	...	153·5	72·	95·9	74·5	21·4	85·2	2·49	79·3			
July ...	...	151·5	70·	94·9	73·8	21·1	84·4	8·77	77·5			
August ...	...	149·2	68·	94·9	73·6	21·3	84·3	21·43	77·5			
September	...	146·5	68·	91·8	72·8	19·0	82·3	50·21	75·9			
October ...	...	146·5	68·	92·1	73·0	19·1	82·6	29·07	77·1			
November	...	143·1	67·5	89·9	72·0	17·9	80·9	17·29	76·7			
December	...	149·9	68·5	91·7	73·0	18·7	82·4	9·84	77·2			
Mean ...	...	148·7	67·5	94·1	73·4	20·7	83·7	Total 172·88	77·5			

PROVINCE WELLESLEY.

*Return of Diseases and Deaths in 1908 at the following Institutions:—
Butterworth, Bukit Mertajam and Sungai Bakap Hospitals.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	2	89	10	91	20	
Cerebro-Spinal Meningitis ...	...	2	1	2	...	
Chicken-pox ...	1	15	...	16	...	
Cholera ...	...	1	...	1	...	
Dysentery ...	7	182	63	189	8	
Erysepelas ...	...	3	1	3	...	
Gonorrhœa ...	7	58	...	65	2	
Gonorrhœal Ophthalmia ...	...	4	...	4	...	
„ Rheumatism ...	1	40	...	41	3	
„ Orchitis ...	...	4	...	4	1	
Leprosy ...	...	3	...	3	...	
Malarial Fever, B. Tertian ...	2	105	...	107	...	
„ Quartan ...	...	1	...	1	...	
„ Malignant ...	1	103	15	104	3	
„ Cachexia ...	...	26	1	26	...	
Ague Cake ...	1	2	...	3	1	
Measles ...	...	7	...	7	...	
Mumps ...	...	1	...	1	...	
Phagedæna ...	1	7	3	8	1	
Pneumonia ...	...	22	10	22	...	
Febricula ...	1	32	...	33	...	
Rheumatism ...	...	59	...	59	2	
Sapræmia ...	...	1	1	1	...	
Syphilis, Primary ...	...	14	...	14	...	
„ Secondary ...	4	197	2	201	10	
„ Tertiary ...	...	18	...	18	...	
Hip-Joint Disease ...	1	...	...	1	1	
Pott's Disease ...	...	2	...	2	...	
Whooping Cough ...	...	2	...	2	...	
Yaws ...	1	...	...	1	...	
INTOXICATIONS.						
Alcoholism ...	...	3	...	3	...	
Mercurialism ...	...	2	...	2	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS.						
Anæmia ...	5	81	31	86	4	
Chlorosis ...	...	1	...	1	...	
Lymphadenoma ...	...	2	...	2	...	
DISEASES OF THE NERVOUS SYSTEM. INFLAMMATION AND DEGENERATION.						
Neuritis ...	...	6	...	6	1	
Sciatica ...	...	5	...	5	...	
DISEASES OF SPINAL CORD & MEMBRANES.						
Meningitis ...	...	2	1	2	...	
Myelitis ...	...	2	1	2	1	
DEGENERATIONS.						
(a) Of Anterior Columns ...	...	1	...	1	...	
(b) Of Lateral „ ...	1	2	...	3	1	
(c) Of Posterior „ ...	...	1	...	1	...	
Carried forward ...	36	1,108	140	1,144	59	

*Return of Diseases and Deaths in 1908 at the Province Wellesley
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	36	1,108	140	1,144	59	
DISEASES OF BRAIN AND MEMBRANES.						
Hæmorrhage ...	...	2	2	2	...	
NERVOUS DISORDERS AND DISEASES OF UNDETERMINED NATURE.						
Paralysis:—						
Hemiplegia ...	1	12	1	13	3	
Monoplegia ...	...	1	...	1	...	
Epilepsy ...	...	4	...	4	...	
Migraine ...	...	3	...	3	...	
Neuralgia ...	...	2	...	2	...	
Hysteria ...	1	...	...	1	...	
Neurasthenia ...	...	1	...	1	...	
DISEASES OF THE EYE.						
Conjunctivitis.						
(a) Catarrhal ...	1	6	...	7	1	
(g) Granular ...	...	8	...	8	1	
Keratitis ...	1	3	...	4	...	
Ulceration of Cornea ...	...	8	...	8	1	
Opacity of Cornea ...	1	...	...	1	...	
Acquired Deformities ...	...	1	...	1	...	
Iritis ...	...	8	...	8	...	
Cataract ...	...	2	...	2	...	
Amaurosis ...	...	1	...	1	...	
Dacryocystitis ...	...	1	...	1	...	
Blepharitis ...	...	1	...	1	...	
Entropion ...	...	1	...	1	...	
DISEASES OF THE EAR.						
Inflammation External Ear.	...	6	...	6	...	
Suppuration „ ...	...	2	...	2	...	
Inflammation Middle Ear ..	...	1	...	1	...	
DISEASES OF THE CIR- CULATORY SYSTEM.						
Valvular Disease of Heart ...	1	55	12	56	2	
Aneurism ...	...	1	1	1	...	
DISEASES OF THE RES- PIRATORY SYSTEM.						
Asthma ...	...	11	...	11	...	
Laryngitis ...	...	2	...	2	...	
Bronchitis ..	2	47	...	49	2	
Abscess' Lung ...	...	1	...	1	1	
Phthisis ...	2	105	52	107	7	
Pleurisy ...	...	2	...	2	...	
Empyema ...	...	4	3	4	1	
Pyo-Pneumothorax ...	...	1	1	1	...	
DISEASES OF THE DIGESTIVE SYSTEM.						
Stomatitis ...	...	1	...	1	...	
Caries Teeth ...	...	2	...	2	...	
Gastritis ...	...	17	...	17	...	
Gastric Ulcer ...	...	1	...	1	1	
Dilatation Stomach ...	...	2	...	2	...	
<i>Carried forward ...</i>	46	1,434	212	1,480	79	

*Return of Diseases and Deaths in 1908 at the Province Wellesley
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	46	1,434	212	1,480	79	
DISEASES OF THE DIGESTIVE SYSTEM.— <i>Continued.</i>						
Indigestion ...	...	26	...	26	1	
Gastralgia ...	...	3	...	3	1	
Enteritis ...	3	19	8	22	1	
Sprue ...	...	2	1	2	...	
Strangulated Inguinal Hernia ...	...	1	1	1	...	
Intestinal Obstruction ...	...	2	1	2	...	
Diarrhœa ...	1	144	59	145	6	
Constipation ...	...	15	...	15	...	
Colic Intestinal ...	...	27	...	27	...	
Fistula in Ano ...	...	6	...	6	...	
Hæmorrhoids ...	1	12	...	13	...	
Prolapse Rectum ...	...	3	...	3	...	
Hepatitis ...	...	1	...	1	...	
Cirrhosis of Liver ...	1	21	9	22	3	
Congestion of Liver ...	...	1	...	1	...	
Jaundice ...	...	3	2	3	...	
Peritonitis ...	...	1	1	1	...	
Ascites ...	...	1	...	1	...	
Perineal Abscess ...	...	1	...	1	...	
DISEASES OF THE LYMPHATIC SYSTEM.						
Splenitis ...	...	4	...	4	...	
Lymphadenitis ...	...	7	...	7	2	
Suppuration (Glands) ...	2	29	...	31	6	
Lymphangitis ...	...	1	...	1	...	
DISEASES OF THE URINARY SYSTEM.						
Bright's Disease ...	1	27	10	28	2	
Pyo-Nephritis ...	...	1	1	1	...	
Chronic Cystitis ...	1	...	...	1	...	
Hæmaturia ...	...	1	...	1	...	
Albuminuria ...	...	2	...	2	...	
DISEASES OF THE GENERATIVE SYSTEM. (MALE ORGANS.)						
Urethritis ...	...	1	...	1	...	
Stricture Urethra ...	...	9	...	9	...	
Urethral Fistula ...	...	1	...	1	...	
Extravasation of Urine ...	...	2	2	2	...	
Urethral Calculus ...	...	1	...	1	...	
Phimosi ...	1	21	...	22	...	
Paraphimosis ...	...	1	...	1	...	
Balanitis ...	...	1	...	1	...	
Ulcer Penis ...	...	3	...	3	...	
Chancroids ...	3	63	...	66	3	
Varicocele ...	...	1	...	1	...	
Hydrocele ...	...	6	...	6	...	
Orchitis ...	...	9	...	9	...	
Epididymitis ...	...	1	...	1	...	
Hernia Testis ...	...	1	...	1	...	
FEMALE ORGANS.						
Inflammation (ovary) ...	...	1	...	1	...	
Parametritis ...	...	1	...	1	...	
Endometritis ...	...	4	...	4	...	
<i>Carried forward...</i>	60	1,922	307	1,982	104	

*Return of Diseases and Deaths in 1908 at the Province Wellesley
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	60	1,922	307	1,982	104	
DISPLACEMENTS AND DISTORTIONS (UTERUS).						
(b) Retroversion ...	...	3	...	3	...	
(f) Prolapse ...	...	1	...	1	...	
Leucorrhœa ...	...	10	...	10	...	
Other Diseases ...	...	3	...	3	...	
AFFECTIONS CONNECTED WITH PREGNANCY.						
Abortion ...	...	2	...	2	...	
Dystocia & Retention of Placenta ...	...	1	...	1	..	
DISEASES OF THE FEMALE BREAST.						
Abscess ...	...	2	...	2	...	
DISEASES OF ORGANS OF LOCOMOTION.						
Periostitis ...	...	6	...	6	...	
Necrosis Bone ...	...	3	...	3	...	
Synovitis ...	1	18	...	19	...	
Arthritis ...	1	...	...	1	...	
Caries Spine ...	...	1	...	1	...	
Scoliosis Spine ...	...	1	...	1	...	
Psoas Abscess ...	1	...	...	1	...	
Myalgia ...	1	29	...	30	...	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	...	8	...	8	...	
Abscess ...	4	61	...	65	6	
Gangrene ...	...	1	...	1	1	
Elephantiasis ...	...	3	...	3	...	
DISEASES OF THE SKIN.						
Eczema ...	1	24	...	25	1	
Carbuncle ...	1	...	...	1	...	
Herpes Zoster ...	...	1	...	1	...	
Ichthyosis ...	...	5	...	5	...	
Impetigo ...	...	4	...	4	1	
Urticaria ...	...	1	...	1	...	
Ulcers ...	15	356	...	371	18	
Whitlow ...	...	3	...	3	...	
Onychia ...	...	3	...	3	...	
INJURIES. GENERAL INJURIES.						
Burns and Scalds ...	...	4	...	4	1	
Gun-Shot Wounds ...	...	4	...	4	...	
Multiple Wounds ...	...	14	...	14	1	
LOCAL INJURIES.						
Contusions ...	...	18	...	18	...	
Contractures ...	...	1	...	1	...	
<i>Carried forward ...</i>	85	2,513	307	2,598	133	

*Return of Diseases and Deaths in 1908 at the Province Wellesley
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	85	2,513	307	2,598	133	
INJURIES OF ANATO- MICAL REGIONS.						
Head and Neck ...	2	47	4	49	4	
Trunk and Abdomen ...	...	5	1	5	1	
UPPER EXTREMITIES.—						
Wounds ...	...	31	...	31	1	
Fractures ...	2	18	...	20	3	
LOWER EXTREMITIES.—						
Wounds ...	...	27	...	27	...	
Fractures ...	...	8	...	8	3	
Sprain Ankle ...	...	6	...	6	1	
Wound Scrotum ...	...	1	...	1	1	
Buffalo Gore ...	1	3	...	4	...	
Snake Bite ...	...	1	...	1	...	
Alligator Bite ...	...	1	...	1	...	
Dog Bite ...	...	1	...	1	...	
PARASITES.						
Anchylostomiasis ...	2	83	17	85	4	
Round Worms ...	...	4	...	4	...	
Scabies ...	...	34	...	34	...	
Tænia Imbricata ...	1	...	...	1	...	
Ringworm ...	...	7	...	7	...	
Tapeworm ...	...	1	...	1	...	
Guinea Worm ...	...	4	...	4	...	
OBSERVATION FOR INSANITY.	3	25	1	28	...	
NO APPRECIABLE DISEASE ...	1	33	...	34	...	
Parturition ...	...	3	..	3	...	
MALFORMATIONS.						
Imperforate Anus ...	...	1	...	1	...	
New Growth, Non-malignant.	...	...	...	...	...
„ Malignant ...	...	6	1	6	1	
Cysts ...	...	2	...	2	...	
Old Age ...	...	1	1	1	..	
Foreign Body Nose ...	...	1	...	1	...	
Total ...	97	2,867	332	2,964	152	
OPERATIONS PERFORMED IN 1908.						
Varicocele ...	...	1	...	...	...
Circumcision ...	...	20	...	...	...
Amputation Fingers ...	...	5	...	...	...
„ Leg ...	...	1	...	...	...
Removal of Suppurating Glands ...	...	8	...	...	...
Removal Cystic Tumour ...	...	1	...	...	...
<i>Brought forward/...</i>	...	36	...	...	...

*Return of Diseases and Deaths in 1908 at the Province Wellesley
Hospitals.—Concluded.*

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	...	36	...	...	...
OPERATIONS PERFORMED IN 1908.— <i>Continued.</i>						
Removal Foreign Body Nose.	...	1	...	...	...
Operation for Empyema	3	...	...	...
Laparotomy for Intestinal Obstruction	2	...	...	...
Operation for Strangulated Inguinal Hernia	1	...	...	...
Radical Cure for Hydrocele.	...	3	...	...	...
Ligature of Internal Piles	4	...	...	...
Amputation of Penis	2	...	...	...
Urethrotomy for Impacted Urethral Calculus	1	...	...	...
Tracheotomy	1	...	...	...
Trephining of Skull for De- pressed Fracture	1	...	...	...
Sequestrotomy	1	...	...	...
Extraction of Shots (Gun- Shot Wounds)	1	...	...	...
Fistula in Ano	3	...	...	...
and several minor Opera- tions such as the opening up of Abscesses, tapping of Abdomen for Ascites, Scraping of Ulcers, etc.						
	...	60	...	...	...

MALACCA.

Return of the Statistics of Population for the Year 1908.

	Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1908 ...	56	1,507	74,963	20,474	1,059	79	98,138
„ Births during the year 1908	2	81	3,750	603	49	50	4,535
„ Deaths „ „ 1908	2	70	2,834	1,397	305	91	4,699
„ Immigrants „ „ 1908	} No data available.						
„ Emigrants „ „ 1908							
Number of inhabitants in 1907 ...	57	1,518	74,686	20,332	1,091	80	97,764
Increase ...	...	...	277	142	...	...	374
or Decrease ...	1	11	...	...	32	1	...

Meteorological Return for the Year 1908.

	TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
	°F	°F	°F	°F	°F	°F	Ins.	%			
January ...	157°	67°	90°	73°	17°	81°5	3°84	78°6			
February ...	112°	67°	88°	73°	15°	80°5	3°04	80°6			
March ...	137°	61°	90°	73°	17°	81°5	6°79	80°6			
April ...	150°	68°	89°	71°	18°	80°0	4°03	81°6			
May ...	153°	69°	86°	77°	9°	81°5	4°75	82°0			
June ...	147°	67°	89°	73°	16°	81°0	6°46	80°6			
July ...	147°	61°	88°	72°	16°	80°0	6°51	79°6			
August ...	146°	63°	88°	73°	15°	80°5	14°91	79°6			
September ...	147°	65°	85°	72°	13°	78°5	15°16	79°6			
October ...	153°	64°	87°	73°	14°	80°0	9°30	80°3			
November ...	144°	62°	86°	72°	14°	79°0	7°31	79°6			
December ...	143°	60°	87°	74°	13°	80°5	4°53	80°3			
Mean ...	144°6	60°	87°7	73°	14°7	80°3	Total 72°2	80°2			

MALACCA.

Return of Diseases and Deaths in 1908 at the following Institutions:—General Pauper, Contagious Disease, Leper, Prison, Alor Gajah and Jasin Hospitals.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	67	663	55	730	73	
Dysentery ...	5	139	62	144	4	
Typhoid Fever ...	...	1	...	1	...	
Erysipelas ...	...	3	...	3	...	
Gonorrhœa ...	2	26	...	28	...	
Mal. Fever (not specified) ...	2	283	7	285	11	
" B. T. ...	14	283	...	297	8	
" S. T. ...	2	61	31	63	1	
" Quartan ...	...	11	3	11	1	
Chronic Malaria ...	3	86	8	89	5	
Leprosy ...	...	4	...	4	2	
Mumps ...	...	2	...	2	1	
Phagedœna ...	1	40	17	41	2	
Pneumonia ...	1	18	9	19	1	
Pyæmia ...	...	1	1	1	...	
Pyrexia (cause unknown) ...	...	78	...	78	...	
Rheumatism ...	3	17	...	20	1	
Small-pox ...	...	1	...	1	...	
Syphilis, Primary ...	3	4	...	7	...	
" Secondary ...	23	218	5	241	18	
Tetanus ...	...	1	...	1	...	
Tuberculosis ...	1	4	...	5	1	
GENERAL DISEASES NOT INCLUDED IN ABOVE.						
Anæmia ...	6	61	8	67	4	
Lymphadenoma ...	...	2	1	2	...	
CERTAIN MORBID CONDITIONS.						
Sarcoma ...	...	7	4	7	...	
DISEASES OF THE NERVOUS SYSTEM.						
Neuritis ...	...	3	...	3	...	
Spinal Meningitis ...	...	1	1	1	...	
Acute Myelitis ...	...	1	1	1	...	
Cereb. Hæmorrhage ...	...	2	1	2	...	
Sclerosis ...	...	2	...	2	...	
Paralysis ...	...	1	...	1	...	
Hemiplegia ...	2	5	4	7	...	
Paraplegia ...	...	1	1	1	...	
Monoplegia ...	...	3	...	3	1	
Bell's Palsy ...	...	1	...	1	...	
Epilepsy ...	...	4	...	4	...	
Cephalalgia ...	...	1	...	1	...	
Hiccough ...	...	1	...	1	...	
Melancholia ...	...	1	...	1	...	
Dementia ...	...	1	...	1	...	
DISEASES OF THE EYE.						
Conjunctivitis Catarr. ...	1	8	...	9	1	
" simple ...	...	2	...	2	...	
Per. Ophthalmia ...	...	2	...	2	...	
Trachoma ...	...	2	...	2	...	
Pinguecula ...	...	1	...	1	...	
Keratitis ...	...	1	...	1	...	
Carried forward...	136	2,058	219	2,194	135	

Return of Diseases and Deaths in 1908 at the Malacca Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	136	2,058	219	2,194	135	
DISEASES OF THE EYE. —Continued.						
Hypopyon Keratitis ...	...	1	...	1	1	
Ulcer Cornea ...	...	7	...	7	1	
Opacity Cornea ...	...	2	...	2	1	
Staphyloma ...	...	1	...	1	1	
Iritis ...	...	2	...	2	2	
Lent. Cataract ...	1	...	...	1	...	
Shrunken Eyeball ...	1	...	...	1	...	
Amaurosis ...	1	3	...	4	...	
DISEASES OF THE EAR.						
Chr. Cat. of Ear ...	...	1	...	1	...	
Infln. of Ext. Ear ...	...	1	...	1	...	
DISEASES OF THE CIRCULATORY SYSTEM.						
V. Disease, Heart ...	2	11	1	13	1	
Cereb. Embolism ...	...	1	1	1	...	
DISEASES OF THE RESPIRATORY SYSTEM.						
Asthma ...	1	10	...	11	...	
Bronchitis ...	4	10	...	14	...	
Hæmoptysis ...	...	1	...	1	...	
Bron. Pneumonia ...	...	2	1	2	...	
Phthisis ...	6	133	80	139	5	
Emphysema ...	...	2	...	2	...	
Pleurisy ...	...	2	2	2	...	
DISEASES OF THE DIGESTIVE SYSTEM.						
Cancrum Oris ...	...	2	1	2	...	
Dental Caries ...	...	1	...	1	...	
Cat. Sore throat ...	...	4	...	4	...	
Dyspepsia ...	2	3	...	5	...	
Cat. Enteritis ...	...	2	...	2	...	
Red. Ing. Hernia ...	...	1	...	1	...	
Diarrhœa ...	17	119	58	136	...	
Intest. Colic ...	3	4	...	7	...	
Ischio Rectal Abscess ...	...	1	...	1	...	
Ulcer Rectum ...	1	1	1	2	...	
Fistula in Ano ...	...	1	...	1	...	
Piles (Hæmorrhoid) ...	...	1	...	1	...	
Prolapse Ani ...	...	4	...	4	1	
Cirrhosis Liver ...	3	18	11	21	1	
Jaundice ...	...	1	...	1	...	
Chr. Peritonitis ...	...	1	...	1	...	
Ascites ...	1	1	...	2	...	
DISEASES OF THE LYMPHATIC SYSTEM.						
Bubo ...	1	14	...	15	1	
Elephantiasis ...	1	3	...	4	1	
DISEASES OF THE URINARY SYSTEM.						
Nephritis ...	6	63	27	69	3	
Pyonephrosis ...	...	1	1	1	...	
Calculus Vesical ...	...	2	...	2	...	
Retention of Urine ...	...	1	...	1	...	
<i>Carried forward ...</i>	187	2,497	403	2,684	154	

Return of Diseases and Deaths in 1908 at the Malacca Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	187	2,497	403	2,684	154	
DISEASES OF THE GENERATIVE SYSTEM.						
Stricture Urethra ...	3	5	...	8	...	
Phimosis ...	...	4	...	4	...	
Ulcer Penis ...	2	21	...	23	...	
Soft Chancre ...	...	14	...	14	...	
Abscess Scrotum ...	...	7	...	7	2	
Hydrocele ...	...	3	...	3	...	
Hæmatocele ...	...	1	...	1	...	
Orchitis ...	1	4	...	5	...	
Hernia Testes ...	...	3	...	3	...	
Ulcer Vulva ...	...	3	...	3	1	
AFFECTIONS CONSEQUENT ON PARTURITION.						
Puerp. Septicæmia ...	...	1	1	1	...	
DISEASES OF THE ORGANS OF LOCO- MOTION.						
Gon. Arthritis ...	2	6	...	8	...	
Mus. Rheumatism ...	...	2	...	2	1	
Synovitis ...	...	6	...	6	...	
Ankylosis Knee-joint ...	...	1	...	1	...	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	...	20	...	20	2	
Abscess ...	3	38	...	41	3	
DISEASES OF THE SKIN.						
Eczema ...	6	21	...	27	4	
Tinea Cruris ...	...	5	...	5	...	
Ulcer ...	42	1,039	...	1,081	95	
Scabies ...	2	57	...	59	5	
Carbuncle ...	...	1	...	1	...	
Herpes Zoster ...	...	1	...	1	...	
Pemphigus ...	...	2	...	2	...	
Wart ...	...	2	...	2	...	
Tinea Trichophitina ...	...	3	...	3	1	
„ Imbricata ...	...	3	...	3	...	
INJURIES.						
Burns and Scalds ...	...	9	1	9	...	
Lacd. Wound ...	...	2	...	2	...	
Incd. Wound Throat ...	...	1	...	1	...	
Shock ...	...	1	1	1	...	
Contusion Scalp ...	...	1	...	1	...	
Wound ...	2	9	...	11	...	
Fract. Base of Skull ...	...	1	1	1	...	
Comp. Fracture Skull ...	...	1	...	1	...	
Wound Forehead ...	...	2	...	2	...	
Contusion Face ...	...	1	...	1	...	
Wound Face ...	...	2	...	2	...	
Comp. Fracture Jaw ...	...	5	...	5	1	
Wound Eyelid ...	...	1	...	1	...	
Foreign Matter in Eye ..	...	1	...	1	...	
Contusion Chest ...	...	1	...	1	...	
Contusion Back ...	...	2	...	2	...	
Sprain Foot ...	...	3	...	3	...	
Wound Back ...	...	2	...	2	...	
Fracture Spine ...	...	2	1	2	...	
Wound Penis ...	...	1	...	1	...	
<i>Carried forward...</i>	250	3,818	408	4,068	269	

Return of Diseases and Deaths in 1908 at the Malacca Hospitals :—Continued.

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	250	3,818	408	4,068	269	
INJURIES.—Continued.						
Contusion Forearm	4	...	4	...	
Wound Shoulder	1	...	1	...	
" Arm ...	I	4	...	5	...	
" Hand	3	...	3	...	
Comp. Fracture Ulna	1	...	1	...	
Dis. Humerus	1	...	1	...	
Gun-Shot Wound	4	...	4	...	
" " without Fract.	1	...	1	...	
Contusion Buttock	1	...	1	...	
" Thigh ...	I	2	...	3	...	
Wound Leg	6	...	6	...	
" Foot	2	...	2	...	
M. Injury Tiger Bite	1	I	1	...	
" Pony "	1	I	1	...	
Fract. Femur Neck	3	...	3	...	
Fracture Tibia	2	...	2	...	
" Tibia and Fibula ...	I	1	...	2	I	
Wd. Penetg. Abd. and Lung.	1	I	1	...	
Dog Bite	1	...	1	...	
Wd. Upper Extremity	1	...	1	...	
" Lower "	1	...	1	...	
SURGICAL OPERA- TIONS.						
Opern. Appendicitis	1	...	1	I	
" Hernia	1	...	1	...	
Amputation Leg	1	...	1	...	
POISON.						
Opium Poison	1	...	1	...	
PARASITES.						
Ankylostomiasis	26	7	26	6	
OBSERVATION ...	2	154	...	156	5	
NO APPRECIABLE DISEASE. ...	4	45	...	49	2	
Total ...	259	4,089	418	4,348	284	
LIST OF OPERATIONS.						
Removal of Eye Lashes	1	...	1	...	
" Warts	1	...	1	...	
" Foreign Body	1	...	1	...	
(Ear)	1	...	1	...	
" Foreign Body	2	...	2	...	
(Nose)	1	...	1	...	
" Foreign Body	1	...	1	...	
(Finger)	1	...	1	...	
" Cyst (Scalp)	1	...	1	...	
" Incibomiam Cyst	1	...	1	...	
" Tumour	2	...	2	...	
<i>Carried forward ...</i>	...	10	...	10	...	

Return of Diseases and Deaths in 1908 at the Malacca Hospitals.—Concluded

DISEASES.	Remain- ing in Hospital at end of 1907.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1908.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	...	10	...	10	...	
LIST OF OPERATIONS.						
<i>—Continued.</i>						
Exploration Right Ear (For Foreign Body)	1	...	1	...	
Catheterisation	2	...	2	...	
Incision Abscess Axilla	2	...	2	...	
„ Femoral Region	4	...	4	...	
„ Abdomen...	1	...	1	...	
„ Back	1	...	1	...	
„ Scrotum	1	...	1	...	
„ Liver	1	...	1	...	
Aspiration Knee Joint	4	...	4	...	
Extraction of Teeth	6	...	6	...	
„ Lens (Cataract).	1	...	1	...	
For Pterygium and Iridec- tomy	2	...	2	...	
Reduction of Dislocation Shoulder	1	...	1	...	
Extension (Extracapsular Neck of Femur)	1	...	1	...	
Amputation Finger	1	...	1	...	
„ Knee	1	...	1	...	
„ Leg	1	...	1	...	
„ Toe	1	...	1	...	
Opening and Draining Ap- pendix (Abscess)	1	...	1	...	
Angioma	1	...	1	...	
For Fistula in Ano	3	...	3	...	
„ Gastrotomy	1	...	1	...	
„ Hydrocele	3	...	3	...	
„ Hernia	1	...	1	...	
„ Cystotomy	1	...	1	...	
„ Circumcision	4	...	4	...	
„ Paraphimosis	2	...	2	...	
„ Paracentesis Abdominis.	60	...	60	...	
Total	119	...	119	...	

